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THOMAS P. GRASTY, Vice-President.

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COPY FOR ADVERTISEMENTS.

Advertising copy (changes or new advertisements) should reach us Saturday Morning to insure insertion in the issue of the following week.

For the first issue in the month we should receive copy by Friday Morning of the week preceding.

Results of Twenty Years' Work

In a letter to the Manufacturers' Record Mr. J. P. Goodhart of J. P. Goodhart & Co. of New York, regarding the approaching anniversary of the Manufacturers' Record, says:

I wish to congratulate the Manufacturers' Record on its twentieth anniversary, and to commend the management for the magnificent results they have accomplished. Your paper has been so imbued with the possibilities of the South, its development and the progress in the section it represents that evidence of this spirit in its columns has added in no small degree to the prosperity which the South has experienced.

The Board of Trade of Wheeling, W. Va., is considering a plan for a building eight or nine stories high, with a central plant to furnish power for small industries on each floor. Mr. George E. House, chairman of the industrial committee of the chamber, has made a trip through the West to study such plants, and is confident that within thirty days definite steps may be taken for the establishment of such a plant at Wheeling. This plan is looked upon with favor in several parts of the South, and only recently a company of Richmond, Va., has put it into practical operation, its undertaking including encouragement of promising inventors. The two strong points about the plan are that it means economy in the matter of original investment in a site for an industry, and consequent ability to put the bulk of capital in machinery and in the promotion of the business, and that the location of one successful industry at a convenient point is pretty sure to attract others. The Wheeling Board of Trade could scarcely do a better thing for that city than to carry out this undertaking.

The Progressive Union of New Orleans, which has entered upon a career full of promise for the material development of that city, has taken a very long stride for the accomplishment of its purposes by electing to the important position of secretary-manager Mr.

Tom Richardson of Houston, Texas. Mr. Richardson has spent many years in successful work of the kind required by the Progressive Union, and as secretary of the Houston Business League for some years has done much toward bringing Houston to its present influential position in the Southwest. His natural vigor and gift of leadership in all that makes for a city's welfare, together with his practical experience of several years, will be great additions to the Progressive Union in its labors for New Orleans.

An Artificial Agitation.

While a number of good-hearted individuals, notably in Alabama, have permitted themselves to become participants in a social agitation manufactured elsewhere by skilled artificers and trained performers upon sentimentality, and are indulging in the exploitation of theories as perfect as anyone could wish, but as impracticable in normal conditions of humanity as anyone could imagine, practical men in other parts of the South have gathered together a mass of definite facts and straightforward, businesslike comments, based upon experience, to meet the artificial program for an effort to force measures in all legislative bodies of the South. In its present form the agitation, which is merely preliminary, turns upon the employment of minors in cotton mills. No Southern mill-owner is ignorant of existing conditions; nor is he unmindful of the misfortunes to the individual or to the community of these conditions. At the same time, as the statements prepared by South Carolinians and Georgians, respectively, and published elsewhere in this issue of the Manufacturers' Record, show, they are opposed to the agitation, which can only result in checking Southern progress and in creating conditions worse than existing ones. The South Carolinians point out, as every intelligent observer knows, that the conditions, exaggerated in description by unscientific handling of statistics, originate not at the mills, but are survivals of an earlier period, before the mills became missionaries of intelligence, industry and prosperity for a great mass of Southern whites, and that there is a steady movement toward betterment which the demands of labor unions, not supported by the vast majority of employees of the mills, can only check, if not destroy. The Georgians point to the efforts emphasized in the rules adopted by their mills last fall to improve the conditions of their operatives, and insist that the improved condition of mill laborers as compared with their previous condition is poorly understood; that no reason exists for the enactment of legislation interfering between labor and capital, and that the mill-owners are doing more to ameliorate the condition of their employees than any other branch of industry in the State.

All of the assertions in these addresses may not appeal to all the people

of the South, but, in the main, they are sensible and to the point, and are enough to bring legislators to a halt. Sentimentalists, amateur philanthropists and hashers of English writings of half a century and more ago cannot be suppressed in this land of freedom of the press and freedom of thought. But the candid statements of men who know and men who do things, men who are doing more for the masses of labor in the South than a thousand agitators and tender-hearted half-thinkers could do in a thousand years, indicate that the agitators, through their unconscious tools, are tending to the extreme which has so often injured the cause of labor—the confusion of liberty and license.

For Southern Self-Help in Education.

On another page of this issue of the Manufacturers' Record is an interview with Prof. Basil L. Gildersleeve, the distinguished Southern educator and head of the department of Greek at the Johns Hopkins University, heartily endorsing the plan which has been set forth in the Manufacturers' Record for the encouragement of industrial training in the South. Professor Gildersleeve suggests that a great technical school in connection with the Johns Hopkins University would meet a Southern necessity. His suggestion is an excellent one, and it would be a delightful surprise to the friends of the Johns Hopkins, which has for several years had to combat financial misfortunes, if its coming anniversary should bring forth an announcement that a portion of the \$10,000,000 endowment of the Carnegie Institution will take the form of the endowment of a technical school under the auspices of the Johns Hopkins. Such a foundation is only possible through the liberality of one wealthy individual or half a dozen acting together.

It would differ, however, from the plan of the Manufacturers' Record, though it need not interfere with it. That plan is for the benefit of institutions in the South already established and doing excellent work within their limitations. It was proposed as much for the purpose of developing public spirit among Southern men of means and practical interest in their local schools as for the benefit of struggling Southern students. It is only in the growth of public spirit among Southern men that the South may look for the betterment of the opportunities for right sort of education of its poor white boys. The great technical school will undoubtedly come. But the best way for it to come is as a result of generous rivalry of existing institutions in the several States, leading naturally to the selection of the most complete school as the chief of a system ramifying through the whole educational course, from primary school to university. If one man or half a dozen men be expected to do the whole thing, the mass of Southerners, who ought to co-operate to the common end, will be inclined

to lose interest in the project. Let every successful Southern man found one or more scholarships in the agricultural and mechanical college of his own State, and it will not be long before the South will have its Stevens Institute or its Sheffield School.

Reform in the Consular Service

Ambitions of the United States to increase its foreign trade have been hampered by the inadequacy of the American consular service. The system has changed but little in essence since its inception more than a century ago, and one of its main weaknesses in recent years has been the theory upon which appointments to it have been made. In some cases the business representative of the United States has been a native of the country in which the consular office has been established, and not infrequently a man hardly qualified by knowledge of the United States or of his own country to do more than the merest routine. Such a representation might pass as long as the products of the United States do not come into competition with those of the consular officer's own country. In the cases of consuls sent from the United States, appointment has been made on the basis of services rendered in political campaigns to party or factions of party, instead of the ability of the appointee to render practical service to the merchants and manufacturers of the United States.

The demand for a reform in this direction has been growing, and in response to it improvements have been made, as manifested notably in the daily advance sheets of consular reports issued by the State Department, which bear evidence of intelligent direction of consular work from Washington. But the main evil has yet to be overcome. The exigencies of American trade require that consuls shall be something more than broken-down political hacks or incompetent friends of political leaders. And prevailing sentiment among practical men has been crystallized in the plan of the national committee of consular reorganization and voiced in a bill fathered by Senator Lodge. This measure aims straight at the imperfections of the present service, and provides for appointment and retention of competent men as consuls, the payment of adequate salaries, ranging from \$10,000 a year for consuls-general to \$1800 a year. The service is to be graded and classified. Incumbents in the several grades and classes are to be examined at regular periods for promotion or for dismissal, and discharges from the service are to be made only for cause stated in writing, from which the official will have the right to appeal. This measure is expected to overcome the evils of inadequate compensation and uncertainty of tenure of office. If these be removed, and if salaries commensurate with services rendered are paid, there will be no difficulty about finding suitable men in the United States to

coal of this character is almost valueless so near the Birmingham district. I learn that borings made in the field a few years ago in the neighborhood of Swift creek gave a core of coal that seems to have been metamorphosed by igneous action, and that is said to give about 58 per cent. fixed carbon. If this be true, this may become of considerable value, being so near the seashore.

I have already described the oil sands and the conditions relating thereto, and I now call attention to the report made by Prof. S. S. Gorby, mining engineer, ex-State geologist of Indiana, in which he states the following:

"After careful examination of the surface of said lands (in Clarke county), I can state for a fact that oil occurs in them, and whether in large or small quantities, I am unable to state. However, I think it highly probable that by drilling suitable wells, and at the proper places, oil may be found in paying quantities, and possibly in large quantities.

"The only place that I actually detected the presence of oil was at the old salt well.

" * * * This is the only salt well on any of your lands in that region that is now flowing, and the water coming out of it carries a very small amount of oil that collects on the ground and water below the well in a very thin sheet. The oil is a yellowish, heavy oil of an amber color, and practically without odor. Oil is distributed in greater or less quantities through all the stratified-rock deposits. As oil is known to be derived from decomposition of organic matter that was deposited by the sediments that now form the rocks, and that all stratified-rock deposits contain more or less organic matter, both animal and vegetable, it is undoubtedly true that all stratified-rock deposits contain more or less oil. Natural gas is an element derived from the decomposition of oil, and the two are always associated together in rocks. Wherever gas is found, oil may always be expected, and wherever oil is found, gas is known to exist also. In this connection I wish to call attention to the fact that I found gas escaping from the old salt well mentioned above. The gas would burn when a lighted match was held down close to the water, and flash up about four inches high. This gas is what is known as natural gas, with strong heating power, such as occurs in the gas regions of Indiana. I had no means of determining the depth of the salt well, nor the horizon at which the gas is found, but consider the gas occurring there a sure indication of oil, from the fact that it has been escaping from this well for nearly forty years, and especially since a small amount of oil comes out with it. I am quite sure that oil exists in Clarke county in some quantity, but the only way to determine that quantity is by sinking suitable wells.

"Another reason for my considering that oil may be found is the fact that at McGrew's Shoals some years ago, while some blasting was being done under the direction of the government, a vein of oil was opened, which flowed out and covered the surface of the water for a long distance along the river, and which became ignited and burned with great fury for a while.

"The rocks of that region are all stratified or sedimentary, and they are such as they are now getting immense quantities of oil out of in Texas and Louisiana."

In closing, I have to submit the following conclusions:

1st. That the geological formation in Clarke and Washington counties, Alabama, is such as to enable me to recommend the undertaking of salt, gas and petroleum developments to the extent of proving the territory.

2d. That I have no hesitancy in stating that the lands under consideration are capable of supporting a production of at least 10,000,000 cubic feet of natural gas per day for twenty years, and 1000 tons of salt brine per day for an indefinite period.

3d. That by the use of natural gas as fuel the salt brine can be reduced to salt and delivered in Mobile f. o. b. at \$2 per ton.

4th. That the natural gas can be sold at the rate of twenty-five cents per thousand cubic feet, this being the selling price at Pittsburg, Pa.

5th. That the development of the natural-gas feature will stimulate, encourage and create various and new industries in and around Jackson, including terra-cotta, cement, glass and other works suitable to the community and its mineral products.

6th. That these various features are in no way speculative, and form the basis upon which to derive a lucrative and lasting income, if scientifically managed.

7th. That the investigations practised by me warrant the conclusion that there

exists a series of valuable oil sands and pools throughout Clarke county, and that these pools underlie and are associated with the gas-bearing sands; that the formation is identical to that of the Island of Barbadoes, Peru and Mexico, where oil is found. I cannot too highly recommend this feature.

8th. That the clays, marls, ochres and other deposits warrant further and full investigation.

9th. That the unmistakable existence of natural gas in large quantities insures to Mobile a future fuel supply equal to that of Pittsburg, in proportion to population, and at the same price.

10th. That I consider the result of this survey as of the highest value to Alabama and the South, especially so in its position as an important factor in the world's petroleum industry and production.

11th. That Professor Smith, State geologist of Alabama; Professor Gorby, ex-State geologist of Indiana, and Capt. A. F. Lucas confirm the existence of petroleum and natural gas as stated by me.

PRACTICAL ARGUMENTS AGAINST MILL-LABOR AGITATORS.

At a meeting on September 10 last at Greenville of the textile manufacturers of South Carolina, a committee of five was appointed to prepare a statement for the legislature showing the conditions in mill villages, and explaining what the mill corporations have done and are doing for the advancement of the education of their employees. That statement has been prepared, and is signed by Messrs. James L. Orr, E. A. Smyth, J. H. Montgomery, J. B. Cleveland and L. W. Parker. It is as follows:

"No one can deny the unfortunate result of the employment of children of tender years in labor of any kind. Such employment is, nevertheless, often a necessary result of poverty. The agricultural interests of the State have not in recent years afforded to the tenant classes a living revenue. The result of this is that they are in many sections in an impoverished condition, and have sought the mills as a means of obtaining a better living.

"Coming to the mills without resources, and yet unskilled in mill labor, these people are often for a time forced to put into employment within the mill walls those children whom they had previously been accustomed to work upon their farms. Granting that such labor on the farm is not as continuous or confining as that in the mills, it is yet nevertheless the case that the principal cause why it has not previously attracted the same attention as has the employment of children in the mill villages is simply for the reason that the population is more concentrated in the latter, and attention is more especially directed to the fact of the employment of children.

"The mills generally have recognized the evil tendency of child labor, when using this expression in the sense of employment of children of age unsuited to labor. They have and do discourage the employment of such children. They have established and support schools for many months in the year, at a very considerable expense to themselves, and encourage the attendance of children upon these schools. They have aided in the establishment or have established and maintained churches and Sunday-schools, as also libraries and places of entertainment and amusement. But whilst making efforts to improve the condition of the mill population, the managements of the mill properties, being in a position to be conversant with the facts attending individual families, know that in many cases the employment of children

of a younger age than would otherwise be desired is necessary.

"Even before any agitation upon the question of child labor the mills in successful operation had used their efforts to encourage the withdrawal of younger children from the mills and procure their attendance upon schools.

"We are pleased to say that the people of the mill communities had in most cases co-operated in this direction. The proof of this lies in the fact that unquestionably the best conditions in the mill villages as to means of maintenance of family, the attendance on schools and general evidence of more prosperous condition is to be found in the mill villages of several years' establishment, as contrasted with newly-organized communities.

"The manufacturing interests can point with pride to the beneficent efforts of many of the manufacturers to improve the conditions of those in their employ, and they believe that an examination of the mill villages will prove this interest on the part of manufacturers, and the appreciation of both the necessity and desirability of improving the condition of the employees.

"With the facts above recited in view, the textile manufacturers of the State, whilst fully recognizing the misfortune both to the individual and to the community of the employment of children of too youthful an age, believe that the records of the manufacturers show that these conditions are being improved, and that the improvement will continue. The mill community giving the greatest advantages to its employees in the way of schools, churches, libraries and places of entertainment is going to attract to itself the most intelligent labor. Under such conditions a natural competition amongst corporations for the best labor will force those who might otherwise not be willing to come to the improved conditions to do so.

"Being conversant with the population, and with the necessities and opportunities of those in their employ, we believe the manufacturers are best able to exert a proper influence in the inducements of education. The results of arbitrary legislation would be felt not so much by the older-established mills as by the newly-established, and not so much even by these latter as by that portion of our population who, from distress and misfortune, have been forced to seek mill life, and are not yet prepared to support them-

selves without the labor of their children.

"We believe it is an unfair consideration to speak of the proportion of illiterates in any mill community. An examination of conditions will prove that this illiteracy has occurred prior to the coming of the employees to the mills. The records will show that as full a percentage of mill children are attendant upon school as any other class of working people within the bounds of the State. Indeed, we say with certainty that a larger percentage of mill children are at school than can usually be found even in villages.

"The returns of the sixty-five mills included in the tabulated statement referred to show that there are within their communities ninety-three churches, valued at \$159,000, outside of churches situated in towns.

"Of the above amount, the companies have contributed \$82,595 towards the erection, and they, moreover, assist in the maintenance of these churches and Sunday-schools to the amount of \$5483.

"It appears, further, that these same corporations are paying the three-mill tax towards the education of the community, \$44,802.16, and in the way of special assessments or special contributions, \$27,512.14 additional; that the poll-taxes for the several communities amount to \$7904, thus making a total of over \$80,000 contributed by these mill communities towards the education of the people and of their own employees.

"They have invested in school buildings \$74,975; in school equipment, \$11,189. All the schools, with a single exception, have free tuition, and the average term has been 8.86 months, or twice that of the other portions of the State, according to the report of the superintendent of education. The total enrollment under these schools has been during the past year 7434 children, with the average attendance of 4741. With such figures it does seem that fair-minded men must be impressed with the fact that the manufacturers are doing their best to educate the children in their mill villages, and to relieve, so far as practicable, the unfortunate results of child labor.

"It is to be regretted that the agitation for legislation upon this subject is coming, to a large extent, from labor unions. If any employee of a corporation is truly anxious to remedy the evils of employment of children of too youthful an age, their efforts can be best directed towards assisting the manufacturers to accomplish the results desired. The truth is that the labor unions have seen an opportunity of availing themselves of public sentiment in order to strengthen themselves in the public estimation. We would see with regret the passage of any legislation which would be apparently a recognition of labor unions within the State.

"The effect of labor legislation has not been in other countries, or in other sections of this country, conducive to an improved condition of the people or to success in manufacturing. England is now hampered by such unfortunate legislation that she is losing her trade in manufactures.

"New England is in many sections handicapped in like manner—so much so that a few years ago her representatives in Congress endeavored to enact an amendment to the Constitution of the United States for the avowed purpose of hampering Southern labor, which, free from shackling laws and tyrannical unions, is undermining her supremacy in cotton manufacturing. We believe that much of the agitation in the South in favor of labor legislation is brought about by labor unions in New England, aided and abetted by New England manufacturers seeking to stifle Southern enterprises.

There is no demand for legislation of this character by the vast majority of those employed within the mills of the State. Almost without exception such employes protest against interference and ask to be let alone.

"The advocates of this bill claim that the working of children in the mill is injurious to the public, in that when such children become grown they are mentally, morally and physically unsuited for the duties of citizenship. We believe the standard citizenship within the mill villages is the equal of that in other communities of the State. However that may be, a compulsory educational law will affect the mill villages as well as other sections of the State, and the unanimous desire of the manufacturers, as expressed above, is for the enactment of such a law as will enable them to carry out effectively what they have been trying to do for years, to wit, encourage attendance upon the schools. Without the compulsory school law the enactment of any child-labor law will be of little value. We believe now that there is less ignorance among children raised at cotton mills than those at farms isolated and distant from schools, especially so when it is considered that within the mill villages the schools run about nine months in the year, and in the country from three to five months."

Appended to the address is a tabulated statement based upon returns from sixty-five of the 117 mills in the State, showing what is being done in the mills in the matter of education of employes:

The mills are paying under the three-mill tax for education.....	\$44,802 16
The mills are paying in addition to this per annum for schools, including salaries, fuel, school expenses.....	27,512 51
The amount paid for poll-tax by those connected with mills.....	7,394 00
The value of school buildings furnished by companies.....	74,975 00
Value of school equipment.....	11,189 00
Average months schools run per annum.....	8.86
Total enrollment per annum.....	7,433
The average attendance of the schools.....	4,731
Is tuition free?.....	All free.
Churches in villages of mills.....	93
Value of same.....	\$159,500 00
The companies have contributed towards erection.....	90,595 00
Companies pay per annum in assisting churches and Sunday-schools.....	5,208 00

The itemized statistics on each of these topics is given from each of the following mills: Abbeville Cotton Mill, Anderson Cotton Mill, Arkwright Cotton Mill, Aiken Manufacturing Co., American Spinning Co., Ashby Cotton Mills, Arcade Cotton Mills, Belton Cotton Mills, Bennettsville Manufacturing Co., Brandon Mills, Beaumont Manufacturing Co., Cox Manufacturing Co., Clifton Manufacturing Co., Clinton Manufacturing Co., Clinton Cotton Mills, D. E. Converse Company, Carolina Mills, Camden Cotton Mills, Courtenay Manufacturing Co., Colleton Cotton Mills, Darlington Manufacturing Co., Easley Cotton Mill, Edgefield Manufacturing Co., Enoree Manufacturing Co., Fork Shoals Cotton Mill, Fairfield Cotton Mill, Gaffney Manufacturing Co., Goldville Manufacturing Co., Graniteville Manufacturing Co., Greenwood Cotton Mill, Grendel Mills, Limestone Mills, Lancaster Cotton Mills, Langley Manufacturing Co., Laurens Manufacturing Co., Liberty Cotton Mills, Lockhardt Mills, Mills Manufacturing Co., Monaghan Mills, Manchester Cotton Mills, Monarch Cotton Mills, Norris Cotton Mills, Newberry Cotton Mills, Orr Cotton Mills, Olympia, Grundy and Richland Mills, Pendleton Manufacturing Co., Palmetto Cotton Mills, F. W. Poe Manufacturing Co., Paeolet Manufacturing Co., Pelham Mills, Pelzer Manufacturing Co., Piedmont Manufacturing Co., Riverside Manufacturing Co., Reedy River Manufacturing Co., Springstine Manufacturing Co., Sumter Cotton Mills, Saxon Cotton Mills, Sutor Cotton Mills, Tuepau Cot-

ton Mills, Victoria Cotton Mills, Victor Manufacturing Co., Valley Falls Manufacturing Co., Walhalla Cotton Mill, Warren Manufacturing Co., Whitney Manufacturing Co.

The managements of mills in Georgia have also prepared an address on similar lines through Mr. B. S. Walker of Monroe, president, and C. D. Fuller of Atlanta, secretary, of the Georgia Industrial Association. From it the following is taken:

"A few designing labor agitators can take advantage of the existing labor conditions throughout the South and work untold injury, especially when encouraged by the sanction of law.

"We confidently believe that few, if any, of the disinterested people agitating in favor of child-labor laws have any accurate knowledge either of what the mills are doing or of the actual conditions that exist. This association adopted last year a set of rules, which have been agreed to in writing, and are being enforced vigorously at this time by every mill in Georgia. These rules are as follows:

"1. One week's work shall not exceed sixty-six hours.

"2. No child under twelve years of age will be allowed to work at night, and no child under ten years shall be allowed to work under any circumstances.

"3. Between the ages of ten and twelve years a child may work in daytime only under either one of the following conditions:

"1. Such child must be able to read and write.

"2. The child of a widow or physically-disabled parents who are dependent upon the labor of such child for support.

"3. After such child has attended school for four months during each calendar year.

"This voluntary action of the mills as to child labor shows the evident good intention on their part to do everything that could be asked, and at the same time it better preserves the kindly feeling and cordial relations which now exist between the employers and employes than to have legislation on the subject and the 'walking delegate' interfering between them.

"When Georgia has a compulsory education law and a place for these children to go and better their condition, instead of being turned out upon the streets and highways to become waifs, it will be time enough to pass the laws which the labor unions seek to put upon manufacturers.

"The best protectors of the children are their own parents. The present generation of Georgians were raised by parents who were alone responsible for them. It is at least very doubtful if the proposed class legislation and governmental paternalism would produce their superiors.

"The further voluntary action of the mills in Georgia in ameliorating the condition and uplifting the labor in their employ, as evidenced by the improved character of homes, factories and sanitation provided for them, cash payment of wages instead of by stores as formerly, aid toward churches, schools, libraries, lyceums and many other adjuncts, is not understood by the people who are aiding the labor unions in their efforts to have these laws passed.

"The improved condition of mill laborers, as compared with their own previous condition when laboring in the fields and on the farms, is poorly understood. The exaggerated statements of interested parties and emissaries of the American Federation of Labor are too easily accepted by some well-meaning people for anybody to rely on their advice as the basis for sound or intelligent action.

"Now that the mills have adopted rules embracing everything that can be reason-

ably asked for by people who have no ulterior ends to serve, we earnestly appeal to them to make known promptly all complaints and any infraction of these rules to this association, and the same will be speedily remedied. It is our earnest desire and purpose to enforce these rules in letter and spirit. By calling the attention of the undersigned, or either Messrs. O. A. Dunson, La Grange; P. B. Murphy, Newnan; G. Gunby Jordan, Columbus; J. P. Verdery, Augusta; J. L. Hand, Pelham, or A. S. Hamilton, Trion Factory, you can have the matter investigated and dealt with, and will also confer a favor on the association.

"We fear that the same interested parties who are making other exaggerated statements against the mills will try to create the impression that the mills are not bona fide enforcing these rules, and for this reason urge upon all those who are interested in the matter to promptly make known any violation or infraction thereof, and promise that the same will be investigated and remedied at once.

"We know that the enactment of any of these proposed laws will do great harm to Georgia and this section. We know that it is a selfish interest or misguided philanthropy which calls for any such laws. We know that no reason exists for the enactment of any such laws, and we have an abiding faith in the conservatism and wisdom of the great mass of the people in this State, who stand for and constitute its substance, progress and development.

"The mill-owners are doing more today to ameliorate the condition of their labor and to elevate their employes than any other branch of industry in the State. We propose to continue doing this, because we believe it is right. We will never willingly submit, however, to the passage of laws that hurt Georgia and the South, help our competitors and take the control of our properties away from us and place them under the dominion of the 'walking delegate' and the 'labor agitator.' We believe that the great mass of Georgians will have to change their character and nature before they aid in its being done."

Mr. I. F. Peters of the Memphis Industrial League has been doing some remarkably good work for Memphis, as shown by the number of industrial establishments secured for that city during the last few months. The latest announcements made in this respect are that the Florence Pump & Lumber Co. of Florence, Ala., which is said to be a branch of the Dempster Mill Manufacturing Co. of Beatrice, Neb., has decided to locate at Memphis under an agreement to establish a large woodworking concern for the manufacture of wooden pumps, wooden columns and interior furnishings for houses. Fifteen acres of ground have been secured as a site, and 100 or more cottages for the workmen are to be built at once. Another enterprise reported is that of the Muncie Pulp Co. of Muncie, Ind., which, it is stated, will build a plant to cover about forty acres and give employment to 600 or 700 hands. This concern will, it is claimed, not only make pulp, but paper of all grades. Memphis is to be congratulated upon these new industrial enterprises, which are destined to have such a marked effect upon the future of that city.

The Norfolk & Portsmouth Title & Guarantee Co., recently organized at Norfolk, Va., includes John G. Slater of Washington and H. L. Page of Norfolk. The company proposes operating not only in Norfolk and Portsmouth, but in Hampton and Newport News, and will make a specialty of examining and guaranteeing real-estate titles.

THE SOUTH'S INDUSTRIAL TASK.

Dr. Basil L. Gildersleeve's Suggestion of Its Application to Baltimore.

An eminent Southern educator who has become interested in the encouragement of technical training for poor white boys in the South, as advocated by the Manufacturers' Record, is Prof. Basil L. Gildersleeve of the faculty of Johns Hopkins University. In discussing the subject, Professor Gildersleeve advances the idea that an excellent opportunity is afforded for the establishment of a technical institution in connection with the university work at Baltimore, and gives some interesting reasons in favor of this argument. Referring to the plan in general, Professor Gildersleeve makes the following comments:

"While I have had time to note only the salient points of the address of Mr. Edmunds, the plan advocated has my unqualified approval. A native of the South, I would naturally favor any legitimate movement to provide additional means of instructing its youth, but it seems to me that there are many practical features in the plan suggested of increasing the interest of the Southern merchant and manufacturer in this movement. Such an opportunity is afforded men of comparatively limited means to assist by subscribing merely enough to defray the expenses of one boy's tuition. It must also be remembered that the Southern States today contain a number of men of wealth who are in a position, if they so desire, to make liberal provision for a technical school. Under the present conditions much of the skilled labor in cotton mills and other industries is secured from the North, partly through lack of adequate facilities for such training at home. The rapid industrial expansion of the South has afforded a much wider field than formerly to the man qualified for this or that work; in fact, such are the inducements to acquire education along fixed lines that our Northern universities having technical branches have considerably increased their proportion of Southern students in recent years.

"I can see no reason why the Southern white boy should not attain as high a degree of proficiency, thus instructed, as those from other parts of the country, although he may be somewhat retarded by the limited opportunities he might have had for early tuition. The changed conditions in the South have opened avenues of employment which were formerly unknown to white people. Before the war, for instance, I can readily recall the fact that negroes were engineers on the sugar and rice plantations, while negro carpenters, bricklayers and other artisans were numerous. Apparently, however, they are abandoning skilled labor, and the poorer class of whites in the South are taking their places; consequently, this gives the latter a very wide field of employment, to which is added the work in the textile mills, the wood and metal and other industries, all requiring technical training to a certain extent. The situation emphasizes the need of more educational facilities in this respect, and the people of the South who can assist the movement in any way should feel it their duty.

"In my opinion, Baltimore offers an exceptionally good site for an institution founded on broad lines, somewhat similar in character to the Stevens Institute or the Massachusetts Institute of Technology. If allied to Johns Hopkins it would result in benefit to both institutions. Our instructors are continually broadening the curriculum, and studies are now taken up which would properly belong to such a school; consequently, it would have the assistance of such members of the

faculty as are now conducting classes on topics which would properly come within its scope and be taught exclusively at the new school, thus giving us needed opportunity to expand on other lines.

"Such an institution should be located where an abundance of material can be found for illustration purposes. The diversified industries in Baltimore and the suburbs give it exceptional advantages. We have the great steel works at Sparrow's Point, the cotton-duck mills in the northern suburbs and west of the city. It is one of the great centers for the production of straw hats and other straw goods, as well as footwear and clothing, and the numerous small industries of various kinds form one of its main sources of wealth. The majority of these are available for investigation and research, and the school need not be located at the university, but possibly at Canton or some other manufacturing center where the students will have access to these object-lessons. In this respect Baltimore is far superior to a small town containing only a few industries, while it also has the advantage of conditions that allow the student to live much more economically, yet comfortably, than in most of the other large cities of the country—a desirable feature, as the attendants of such a school, as a rule, do not have too much money to provide for their wants while securing their education.

"The result which has attended the educational plans of this character at Cornell and other universities should encourage those who favor it in the South, yet the technical branches of Cornell are but loosely allied to the main institution. They are to all practical intents distinct in their courses of instruction, but they have the advantage of the advice of the faculty and the sympathy and support of the university as a whole. Nor is it necessary to name such a school after the university with which it might be connected. Yale and Harvard have schools connected with them which secure their respective titles from those who have endowed them. There is no reason why such offshoot of a university should be named after it, and I believe the same feeling prevails with us as well. Consequently, the individual who might desire to assist in this movement by providing the necessary fund to create a separate institution could have it conducted in alliance with the university proper, yet bear his or her title, if deemed desirable.

"I feel that a broad opportunity is afforded to increase the importance of Baltimore as an educational center, as well as the value of Johns Hopkins, by the adoption of some such plan. I believe that an institute of technology will be located at Washington or some other point nearer the center of the South, if not in Baltimore, as conditions demand it."

Casting Iron Pipe at Charlotte.

The diversified industries of Charlotte, N. C., have received an important addition in the plant of the Charlotte Pipe & Foundry Co., which went into blast last week. A complete modern plant has been fully equipped to produce two, four and six-inch pipe in five-foot sections, using pig-iron from the Birmingham district. The main building is 100x150 feet in size, its machinery including 30-horse-power engine, 40-horse-power boiler, cupola of 80,000 pounds capacity per twenty-four hours, steam hoist for lifting iron to the cupola, and hydraulic-pressure apparatus for testing the pipe. Messrs. W. F. Dowd, S. F. King, Z. V. Kendrick, J. P. Beggs and J. J. Beggs are the incorporators. The two last-named are experienced pipe manufacturers, formerly located at Birmingham, Ala.

WHERE GOOD INVESTMENTS PAY.

Opportunities in the South Revealed in Successful Financiering.

Northern men of means, restive under the diminishing revenues from investments in the finished sections of the country, may find a suggestion of value to themselves and the South as well in the record of the operations of the Williams-Middendorf syndicate of Richmond and Baltimore, among whose achievements are the rehabilitation of the Lexington (Ky.), Richmond and Norfolk (Va.) street-car systems, and the development of water-power at the falls of the James river, for they have been pre-eminently creators of wealth, and while securing great returns on the investments of their own and their clients' money, they have benefited almost beyond computation the communities in which they have chosen to operate. They have proceeded on the theory that there is more to be made in taking a partly-developed, but promising, situation and thoroughly overhauling and systematizing its affairs than there is in dealing in the securities of a fully-developed, though gilt-edge, proposition, and those who have gone with them have large praise for their business and financial sagacity.

For instance, three years ago this syndicate bought the electric street-railway lines of Lexington, Ky. Bonds of the reorganized company were offered at 95, with a bonus of 25 per cent. of stock. By revolutionizing methods, by developing and making of the property a fine system, it has paid so well that bonds are selling at 103, and dividends are being paid on the stock.

The Richmond Traction Co. was an earlier and conspicuously successful venture, and just now the accomplishment of the project to harness the James river is an important fact. Under the title of the Virginia Electric Railway & Development Co., the syndicate has completed the work of damming the James at Richmond, and has signed contracts for all the power developed before beginning the work of coupling up. By the plans of the improvements the capacity of the plant can be increased up to about 13,000 horse-power simply by putting in more units, and it is proposed to at once double the power at present developed.

Leaving these undertakings, and without other than a passing allusion to the great Seaboard Air Line Railway, which is controlled by the Williams and Middendorf people, the operations of this syndicate at and around Norfolk will be dwelt on at some length, for it is here most conspicuously in evidence what a tremendous impetus and vitalizing force, affecting the entire community, are the money and the example of the syndicate's operations.

From the ragged, unkempt and somewhat tumble-down old city of ten years ago, Norfolk today shows up bright, spick and span, with public buildings, office buildings, hotels, schoolhouses, churches, a residence section and paved streets which put her on a par with any Northern city, and make her the equal of almost any city of her class in the Union. Norfolk is no new discovery, for it has been more than 100 years since great prophecies were made as to her future. But as in nearly every case in history, it took outsiders to start things, and most of the striking development in evidence today has come within the five years since John L. Williams & Sons bought the Norfolk Street Railroad and began the perfection of the system which today covers Norfolk, radiates throughout the county and to the seashore.

Within that time the magnificent home of the Citizens' Bank has been built, the

new Monticello Hotel constructed, asphalt, brick and granite paving constructed in every direction, and the handsome subdivision called Ghent transformed from a merely house-dotted waste to a populous section of 5000 population, domiciled in handsome, even magnificent homes. And the power of foreign dollars has here, as elsewhere, done more in the hands of a few live men than all the efforts of sleepy, inert, because narrow-horizoned, business men's associations could accomplish in a generation. It is not the intent herewith to belittle the efforts of all organizations which thrive or die under the pseudonym of business men's associations, but the fact remains, as I have heretofore frequently remarked, that all too often they are made to act simply as buffers between the men who want to accomplish things and need help to do it and the reluctant pocketbooks of those who wax fat on the activities of their fellows. The association thus furnishes a forum for the kickers and the knockers, and as a few men always and everywhere do all the work, the unaroused majority thus has the chance of effective opposition to about everything proposed.

Well, the Williams and Middendorf syndicate went ahead, and in 1898 bought up the Norfolk & Ocean View road, consolidated it with the old line the next year, in 1900 took in the Electric Light & Power Co. operations at Norfolk and Berkeley, and the corporation of the Norfolk Railway & Light Co. was formed. More than \$750,000 has been spent by the company in improvements, betterments and extensions, and it is but a bald fact to state that to the money spent for the plant in the first place and turned loose in the community since, the important improvements in the physical aspect of Norfolk are largely due.

The development of outlying districts is one of the most conspicuous features of changed conditions, and it is also most clearly a direct result of the perfection of the street-car system. Ghent, where the greatest development has occurred, was valued at the beginning, eight years ago, at \$460,000. Within the past five years, when the most rapid development has occurred, it has increased so extensively that today the value of the tract and improvements is \$4,500,000. Park View, Virginia Place and Villa Heights are also outlying districts, where much building has occurred, and which owe their development to the perfected electric railroad system.

In addition to the benefits which have accrued to the city by making accessible new and more delightful sites for homes, the company has done a great work in providing summer entertainment and amusement for Norfolk people and visitors to the city by making of Ocean View a delightful, attractive resort. The Ocean View Hotel has been refitted and improved, and is leased to J. Hull Davidson, the well-known and successful manager of the New Atlantic, Norfolk. A \$15,000 theater has been built at Ocean View by the company, where suitable attractions are provided during the summer. At the end of Willoughby Spit a fine new pier has been constructed, and altogether a very handsome, popular resort has been established, which receives the patronage of the best people of Norfolk. Nature has been very kind to this attractive spot, and the management has done the rest. The road has been double-tracked, and commodious cars make the 20-minute trip at frequent intervals during the season. From Willoughby Spit a steamer owned by the company plies to and from Old Point Comfort. There are eighteen miles of track in the Ocean View line, and thirty-one and one-half in the city division.

The company owns full equipment of cars, which are of the best type of modern construction, and were mostly bought new last October. There have been extensive improvements in the shops and power plant of the company, which illustrate in the best manner the thorough, business-like methods of the syndicate now in control. Much of the system which marks the conduct of the company's business is due to C. Brooks Johnston, vice-president and general manager of the company. He is an inspiring type of the young Virginian, who has been doing things all his life. When he became interested in the first knitting mill in the South, built at Norfolk some years since, he took a subordinate position and learned the business from the inside. Now he owns the mill and runs it most successfully. He was a school commissioner, and examined about every important modern public school in the country before starting in to build new houses at Norfolk. Now there are at Norfolk a number of the best public-school buildings to be found in the country. He was made mayor, and he put through a sale of 4 per cent. paving improvement bonds at considerably above par, besides doing other notably progressive acts. He resigned before his second term as mayor was finished to take the position President R. Lancaster Williams and his associates urged him to accept. That his selection was a particularly happy one, the results of his brief management already demonstrate. The work so well begun at Norfolk will be ably maintained.

ALBERT PHENIX.

Oil in Earthen Reservoirs.

In a letter to the Manufacturers' Record, Messrs. Bright & Co. of Beaumont, Texas, say: "The large earthen reservoir of the German-American Oil Co. is now receiving the first run of oil through the pipe line, which has just been completed. The pressure from the well was quite sufficient to force the oil through the 6000 feet of pipe and deliver a good stream into the tank. The German-American Oil Co. is the first to give this method of storage a practical test, and so far appearances are most encouraging."

OIL NOTES.

Facts About Petroleum and Its Uses.

According to a dispatch from El Paso, Texas, oil has recently been struck near Santa Rosa, N. M., where several companies are prospecting. The fluid was reached at a depth of 600 feet.

An oil exchange has been organized in New Orleans, with about forty members. An effort is being made by it to influence the city authorities to permit the storage and distribution of oil on an extensive scale, with the view to substituting it for coal among the local industries.

The Mexican government has determined to encourage the development of oil-producing territory in the republic if such should be found, and President Diaz recently issued a decree providing for the appointment of experts to examine localities where the conditions seem favorable to the discovery of petroleum. Oil producers in Mexico are given the right by the decree to export the product, also to import free of all duty the necessary machinery for pumping and refining.

The steamer Grover Cleveland, plying between New Orleans and towns on the Louisiana coast, has been fitted with oil-burning apparatus and tanks holding 10,000 gallons of the liquid. On her first trip the saving in the cost of fuel was estimated at over 40 per cent. as compared

with soft coal, while the horse-power developed was equal to that under former conditions. The J. M. Guffey Oil Co. is constructing tanks at Gretna, La., for the purpose of introducing the oil as fuel into this portion of the State, also supplying coast vessels.

PIG-IRON PRODUCTION IN 1901.

The South Did Not Come Up to Its Possibilities.

The annual report of the American Iron and Steel Association, which has just been compiled, makes the total production of pig-iron in the United States for last year 15,878,354 tons, an increase of over 2,000,000 tons compared with 1900, and a gain of 7,250,000 tons compared with 1896. These amazing figures enable us to form some idea of the remarkable activity in the iron and steel trade of the country, and the phenomenal growth of this industry. It is to be regretted that this increase was wholly in the North and West, and that the production in the South was somewhat smaller in 1901 than in 1900. Owing to the conditions now generally understood, the South has made very much less comparative progress in iron production during the last ten years than the rest of the country, and this is strikingly illustrated in the fact that, notwithstanding the phenomenal activity of 1901, the actual output of Southern furnaces was 2,578,864 tons, against 2,604,631 tons in 1900. Fortunately, the conditions which halted the iron development of the South are gradually being overcome, and this section at last is getting its iron business on a basis where a very great increase may be looked for in the future. The production of pig-iron by States for the last three years has been as follows:

States.	Gross Tons of 2240 Pounds.	1899.	1900.	1901.
Massachusetts.....	2,476	3,310	3,536	
Connecticut.....	16,129	10,253	8,442	
New York.....	264,346	292,827	283,692	
New Jersey.....	127,598	170,282	155,746	
Pennsylvania.....	6,558,878	6,365,935	7,343,257	
Maryland.....	234,477	290,073	303,186	
Virginia.....	365,491	490,617	448,982	
North Carolina and Georgia.....	17,825	28,984	27,333	
Alabama.....	1,083,905	1,184,337	1,235,412	
Texas.....	8,803	10,150	2,272	
West Virginia.....	187,858	168,758	168,597	
Kentucky.....	119,019	71,562	68,467	
Tennessee.....	346,166	382,190	337,129	
Ohio.....	2,378,212	2,470,911	3,326,425	
Illinois.....	1,442,012	1,393,383	1,596,850	
Michigan.....	134,443	163,712	170,762	
Wisconsin.....				
Minnesota.....	203,175	184,794	297,551	
Missouri.....				
Colorado.....	138,880	159,204	203,409	
Washington.....				
Total.....	13,620,703	13,789,242	15,878,354	

The production in the Southern States for the last four years has been:

1898.....	2,683,726
1899.....	2,390,554
1900.....	2,604,631
1901.....	2,578,864

Comparing the production by States in 1898 and 1901, Maryland shows an increase of over 110,000 and Virginia 165,000 tons, but a decrease of 42,000 tons compared with 1900. In Alabama the gain from 1898 to 1901 was 192,000 tons, while West Virginia shows a gradual decrease every year from 192,690 in 1898 to 166,597 in 1901, and Kentucky a decrease from 100,724 in 1898 to 68,462 in 1901. In Tennessee there has been an increase from 263,000 in 1898 to 337,000 in 1901, although in that State the production in 1901 was 25,000 tons less than in 1900.

In view of the advantages of the South for iron-making, its progress ought to have been much greater. Its percentage of growth during the last ten years has been less than that of the country at large, and this fact should stir the people of this section to put forth renewed energy towards the development of their iron and steel interests.

The production of Bessemer pig-iron in 1901 was 9,596,793 tons, against 7,943,452 tons in 1900.

The production of basic pig-iron in 1901 was 1,448,850 tons, against 1,072,376 tons in 1900.

The production of spiegeleisen and ferro-manganese in 1901 was 291,461 tons, against 255,977 tons in 1900.

The production of charcoal pig-iron in 1901 was 360,147 tons, against 339,874 tons in 1900. The production of mixed charcoal and coke pig-iron in 1901 was 23,294 tons, against 44,008 tons in 1900.

The statistics of stocks of unsold pig-iron do not include pig-iron made by the owners of rolling mills or steel works for their own use, but only pig-iron made for sale and which has not been sold. The stocks of pig-iron which were unsold in the hands of manufacturers or which were under their control at the close of 1901, and were not intended for their own consumption, amounted to only 70,647 tons, against 442,370 tons at the close of 1900, and 372,560 tons on June 30, 1901.

The American Pig-Iron Storage Warehouse Co. held in its yards on December 31, 1901, 3000 gross tons of pig-iron, of which 2400 tons were coke and 600 tons were charcoal iron. None of this iron was controlled by the makers. Adding this 3000 tons to the 70,647 tons of unsold stocks above mentioned, we have 73,647 tons of pig-iron which were on the market at the close of 1901, which is said to be the smallest stock ever reported, and is less than two days' consumption.

AMERICAN MINERAL PRODUCTS.

Leadership Assumed by the United States.

Estimates of the mineral products of the United States, which have just reached the Treasury Bureau of Statistics, indicate that they will exceed in nearly every particular those of any preceding year. Not only will they exceed those of any preceding year, but exceed in nearly every case those of every other country. In gold, in silver, in iron, in steel, in copper, in coal and in mineral oil the products of the United States in 1901 exceed those of any other country, and in every instance except, possibly, copper, surpass her own record in any preceding year. The estimates of gold and silver production are from the Mint Bureau, and those of pig-iron, copper, coal and mineral oil from the Engineering and Mining Journal. These estimates put the gold production of 1901 at \$80,218,800, against \$79,171,000 in 1900, which was the highest record in gold production that the United States had ever made. They put the silver production of 1901 at 59,653,788 ounces, against 57,647,000 ounces in 1900. The pig-iron production is estimated at 15,800,000 long tons, against 13,789,242 long tons in 1900, in which year the figures exceeded those of any preceding year. The coal production is estimated at 267,850,000 long tons, against 240,965,917 long tons in 1900, the year of highest production heretofore. Of petroleum the production is estimated at 66,000,000 barrels, or 2,772,000,000 gallons, against 2,661,233,568 gallons in 1900, the year of largest production heretofore. Of copper the production is estimated at 595,000,000 pounds, or 265,625 long tons, or about 5000 tons below the figures of 1900, copper thus being the only item in the entire list which shows for 1901 a smaller figure of production than that of last year.

That these figures clearly put the United States in the lead in the production of all these articles is shown by a comparison of the 1900 figures of production of the United States with those of other countries. The London Daily Mail Year-Book puts the pig-iron output of 1900 at—United States, 13,789,242 tons; United Kingdom, 8,908,570 tons; Germany,

8,404,852 tons; Russia, 2,821,000 tons; France, 2,699,494 tons. With the 1901 figures for the United States, 15,800,000 tons, there can be no question that the United States maintains the lead in iron production.

That the coal output of the United States for 1901 will surpass that of any other country is evident from a statement of the above authority, the London Daily Mail Year-Book, which states that "the United States has for the last two years outstripped us as a coal-producing country. In 1900 the United States total output was 245,422,000 (metric) tons; that of the United Kingdom, 225,181,000 tons; Germany, 109,225,000 tons; France, 32,577,000 tons, and Belgium, 23,352,000 tons." This statement, coupled with the fact that the figures of the United States production in 1901 exceed by 27,000,000 tons those of 1900, make it apparent that the United States was in 1901 clearly in the lead in the world's coal production.

As to the precious metals, the estimate of the Mint Bureau is that the United States product of both gold and silver exceeds in 1901 that of any other country.

As to petroleum, while the Russian figures of last year slightly exceeded those of the United States, it is probable that the enormous total of 66,000,000 barrels, or 2,772,000,000 gallons, estimate for the year 1901, places the United States again in the lead in the production of that article, these figures showing an increase of 110,000,000 gallons as compared with 1900.

LAKE SUPERIOR ORE.

The Available Supply and Its Relation to Southern Iron-Making.

Mr. C. R. Van Hise of the United States Geological Survey, who has been making an official examination of the Lake Superior iron-ore region, presents some very interesting suggestions regarding the life of that district. A writer in the Iron Age, in summarizing his report, says:

"If the foregoing reasoning be correct, it is perfectly clear that the ore bodies cannot be expected to extend beyond the depth to which the descending waters may bear oxygen and precipitate iron oxide. Up to the present time all but an insignificant fraction of the ore has been taken above the 1000-foot level. Many ore deposits before reaching the depth of 1000 feet have become smaller and poorer, and a number have been worked out. Two or three ore deposits have been sufficiently persistent, so that they have been worked to the depth of 1500 feet, but the great majority of deposits, even in the older districts, in which there has been time for deep developments, has not been worked to such depths as this. I have no doubt that vastly more high-grade ore will be taken out in the Lake Superior region above the 1000-foot level than below it. If this be true, iron ores of the Lake Superior region bearing more than 60 per cent. of metallic iron are not inexhaustible. Indeed, a very appreciable percentage of such ores yet discovered has already been exploited. But high-grade ores are not the only source of supply.

"Thirteen years ago practically all of the material shipped from the Lake Superior region contained more than 60 per cent. metallic iron. For the last five years large quantities of ore have been shipped from the ranges south of Lake Superior containing less than 60 per cent., and considerable quantities of ore have been shipped running from 40 to 50 per cent. metallic iron. If all material be called iron ore in which the percentage of iron is 50 per cent. or more, with an average amount of phosphorus, a large quantity of material left behind, wasted or not devel-

oped at all, would be ore. If material be called iron ore which runs more than 40 per cent. metallic iron, and this material would be ore in Europe, this would add greatly to the quantity of available ore.

"Already some low-phosphorus, high-silica ores which bear no more than 40 per cent. metallic iron have been marketed for mixture with the Mesaba ores. I have no doubt that within another generation a considerable proportion of the material shipped from the Lake Superior region will run between 40 and 50 per cent. metallic iron, and that low-phosphorus, high-silica ores containing considerably less than 40 per cent. metallic iron will be marketed.

"The exhaustibility of high-grade iron ores in the Lake Superior region cannot be too strongly insisted upon, for belief to the contrary invariably results in lack of foresight and waste on the part of the operators. The policy of mining only the richest ores which can be marketed today, and frequently in handling this material in such a manner as to make it difficult to recover the somewhat lower grade material at a later date, is very short-sighted policy, even from the point of view of the mining men, and ignoring the future of the nation. The sagacious policy is to treat the low-grade ores which cannot be marketed at the present moment as a resource which will certainly have a value in the future. Moreover, taking into account the enormous increase in the amount of ore mined, I have no doubt that the demand for the low-grade ores, which are at present completely ignored or wasted, will come much sooner than mining men believe. The total product of the Lake Superior region since mining began in 1850 to 1900, inclusive, is 171,418,984 long tons. The amount mined in the decade between 1891 and 1900, inclusive, is 114,017,546 long tons, or 66.5 per cent., or nearly seven-tenths of the total amount mined. The product for the year 1900 surpasses that of any previous year, and is one-ninth of the aggregate of this and all preceding years. It is certain that the product of the current decade will far surpass that of the last decade.

"The mining men should seriously consider how many decades' supply such as that of 1891 to 1900 of high-grade materials is in sight, or even discoverable, on the United States side of the boundary. If this amount be placed at 1,000,000,000 long tons, mining at the rate of 20,000,000 tons per year would exhaust the supply in the first half of the twentieth century, or in about the same length of time that mining has been carried on in the Lake Superior region. The exhaustion within a few decades of the high-grade ores of the Lake Superior region now discovered is little short of a certainty. It is therefore plain that the material in which the percentage of iron is below the present market demand, and which must be handled in connection with present operations, should be stock-piled, and that the mines be developed and exploited with the expectation in a comparatively short time of mining material running between 50 and 60 per cent. of metallic iron, and within a comparatively few decades of material running between 40 and 50 per cent. metallic iron."

These facts indicate the gradual lessening of the supply of high-grade Bessemer ore in the Lake Superior district, the utilization of a lower grade of ore than has been worked during the last ten years, and thus the increased cost of iron-making based on Lake Superior ores. All of these points are of very great interest to the South, and indicate that the advantages of that section are to become more and more pronounced as compared with other iron-making districts.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

West Virginia Projects.

[Special Cor. Manufacturers' Record.]
Wheeling, W. Va., January 28.

It is believed that the Baltimore & Ohio Railroad will construct a branch road between the Monongahela River division of the road and the new Short Line. The two lines, it is presumed, will be united at Lumberport, in Harrison county. Under present conditions there is no way in which coal mined along the Short Line may be marketed advantageously. The Short Line extends from Clarksburg to New Martinsville, on the Ohio river. The West Fork river will be bridged at Lumberport and considerable trackage must be built before the two roads can be brought together. The improvement means shipping rapidly to the Pittsburg and the lake markets. The Short Line is a good route to the South and lower river points.

New Martinsville confidently expects the Baltimore & Ohio to begin operations shortly on new yards, which will contain about thirty miles of switches, and exceed any of the yards between Wheeling and Cincinnati. The increase of the coal traffic demands this improvement. This gives rise to the very interesting report that when the yards are finished the entire output of the Fairmont coal district will be shipped this way, because on the Short Line the grades are inconsequential. This refers to coal for river and general Southern shipment. The Baltimore & Ohio owns 200 acres of land below New Martinsville. One day last week the company started men to work on the erection of two tipples, furnished with 40-ton swinging pockets, for the use of trains coaling there.

Development of thousands of acres of new territory is believed to be the object of a new railroad enterprise, the Fairmont & Buckhannon line. A charter has been granted the company, which is composed of New York, Baltimore and Fairmont capitalists. A survey is expected to be started shortly for a broad-gauge road from Buckhannon through Upshur, Marion, Harrison, Taylor and Barbour counties to Fairmont. The company has opened offices at Fairmont. It is said to be the intention to connect with the Baltimore & Ohio near Fairmont, but on which side of the river is not definitely known. It will be a coal road essentially.

Terminals at Washington.

The plans for the new terminals at Washington, to be used by the various railroad companies entering the city, will probably be passed at the present session of Congress, as a bill providing for them, it is understood, has been approved by the committee of the District of Columbia. They provide for the junction of the Baltimore & Ohio and the Baltimore & Potomac railroads near Eckington, the new line entering the city along Delaware avenue upon an elevated way of masonry. The depot yard will begin at First and I streets, in the northeastern part of the city, and the station will extend from I to F street, terminating at Massachusetts avenue, on which it will have a frontage of 800 feet. The railway lines from the South will reach the terminal by a route extending from Virginia avenue and Second street, in the southwestern suburbs, through a tunnel 4000 feet long and depressed way, passing beneath all thoroughfares. The route of the tunnel is below First street.

The depot building proper will be 800

feet in width and two stories high, and built of white stone or marble, the first floor being used for waiting-rooms, restaurant, ticket offices, baggage-room, etc., and the second story utilized for general railroad offices. The building will be surmounted by three domes similar in architecture to the one surmounting the Congressional Library building. The estimated cost of the depot proper is \$3,000,000, exclusive of the approaches. Provision is also made in the plan for a freight terminal station at Eckington, which will be used by the various railroad lines entering Washington.

Building in Missouri.

Official details of the organization of the St. Louis, Memphis & Southeastern Railroad Co. have been received by the Manufacturers' Record in a letter from Mr. E. F. Blomeyer of Cape Girardeau, Mo., who is vice-president. The new company will construct a line from a point on the St. Louis & San Francisco near St. Louis to Crystal City, Mo., thirty-five miles. It will operate this line in connection with the Cape Girardeau & Northern Railroad, which is being built between Cape Girardeau and Crystal City, a distance of ninety miles. At Cape Girardeau connection will be made with several other lines now in operation, while a further extension is proposed from Cape Girardeau to Paw-Paw, a distance of fifty miles. Contracts for all of the work have been let to Messrs. Johnston Bros. of St. Elmo, Ill. St. Louis will be reached by way of the St. Louis & San Francisco system, and it is understood that the St. Louis, Memphis & Southeastern Railroad will be closely associated with the former.

Carolina Northern Extensions

The Carolina Northern Railroad, recently completed between Lumberton, N. C., and Marion, S. C., a distance of forty-one miles, it is reported, will be considerably extended during the present year. In a letter to the Manufacturers' Record Mr. Augustus Mellier, president of the company, wrote that an extension from Marion was in contemplation. It is understood that this extension will terminate at Charleston, while another line will be built between Lumberton and Fayetteville, N. C., forming a new route between Charleston and Fayetteville, and connecting with the Carolina Central division of the Seaboard Air Line at Lumberton. It has been reported that the Carolina Northern Railroad was closely associated with the Seaboard Air Line, and the Charleston extension, if built, would give the latter another outlet at tidewater. The total length of the road, if thus completed, will be 175 miles.

Tallahpoosa to Montgomery.

In a recent issue the Manufacturers' Record referred to the organization of a company which proposes building a line between Tallapoosa, Ga., and Montgomery, Ala., under the title of the Vanderbilt Timber, Mining & Western Railroad Co. In a letter to the Manufacturers' Record W. W. Summerlin, general manager of the company, writes that the road is now in course of construction. It will be 125 miles in length, and is being promoted by a company of which Geo. O. Vanderbilt of Princeton, N. J., is president, and W. H. Martin of Frenchtown, N. J., vice-president. The directors include A. B. Haring, cashier of the Union National Bank of Frenchtown. Mr. Martin is president of the same institution.

Chesapeake Transit Co.

The Chesapeake Transit Co., which is constructing a railroad between Norfolk

and Cape Henry, Va., it is understood, has decided to use electric instead of steam power, and has altered its original plans for terminals. According to a dispatch from Norfolk, the company intends constructing warehouses and pier at Cape Henry, as the road is to be operated in connection with a line of steamers reaching the sound country of North Carolina. A pier 400 feet long is to be built on Lynnhaven bay, and the plans of the company include the construction of a hotel also. The road, when completed, will be sixteen miles in length. The promoting company includes J. Edward Cole of Norfolk.

Extensive Improvements.

According to a statement of General Manager Nixon of the Gulf, Colorado & Santa Fe Railroad, a part of the sum appropriated for improvements during the present year will be expended in the relaying of about 135 miles of the line with 75-pound rails and in the building of a number of bridges. The company is completing the series of oil storage tanks, which are being erected at convenient points for the purpose of supplying fuel for the locomotives. About forty locomotives have been provided with oil-burning apparatus. In addition to these, the company expects to receive forty-three new engines within the next two months.

A Tennessee Project.

In a letter to the Manufacturers' Record L. M. Jarvis of Sneedville, Tenn., one of the promoters of the Powell's Mountain Mineral Railroad, writes that this line is to extend fifty-five miles from a connection with the Southern system in Eastern Tennessee along the Clinch river valley to St. Paul, in Russell county, Virginia. It is proposed to connect with the Ohio River & Charleston road at Clinchport. The company is negotiating with a view to floating bonds to build the line, which will extend through extensive mineral deposits as well as timber lands.

Reports Relative to the Seaboard.

In connection with the recent decision of the Union Springs & Northern Railroad Co. to extend its line to Birmingham, a report is current that the route will be used by the Seaboard Air Line for an entrance into the Birmingham district. The Union Springs & Northern extends from Union Springs to Fort Davis, on the Seaboard, and the extension proposed is being surveyed between Fort Davis and a point in the Birmingham district. The estimated length of the extension is 100 miles.

Atlantic & Birmingham.

In addition to the extension of the Atlantic & Birmingham Railroad from Fitzgerald to Cordele, Mr. George D. Wadley, general manager, advises the Manufacturers' Record that arrangements are being made to build from Cordele to Montezuma, a distance of thirty miles, making the total length of the extension sixty-eight miles. At Montezuma the Central of Georgia system will be reached.

A 200-Mile Project.

In a letter to the Manufacturers' Record Mr. B. F. Yoakum, president of the St. Louis & San Francisco Railroad Co., confirms the report that an extension from Brownwood to San Antonio, Texas, is now under consideration. Surveys are under way, but no decision has been reached as yet relative to letting contracts. The road, if built, will be about 200 miles in length.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Adding 7500 Spindles.

Announcement is made at Columbus, Ga., that the Columbus Manufacturing Co. will at once install the necessary machinery to bring its complement up to the maximum of 25,000 spindles and 800 looms, as originally planned. This step is taken now because of an enforced idleness of several months that is caused by the damage recently sustained at the dam of the Columbus Power Co. While the dam is being repaired the mill's additional machinery will be put in position. The company has awarded contract for the 7500 spindles and 225 looms needed to make the number.

The Cotton Movement.

In his report for January 24 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during the 146 days of the present season was 7,655,429 bales, an increase over the same period last year of 335,129 bales; exports were 4,293,766 bales, an increase of 464,510 bales; takings by Northern spinners 1,279,620 bales, a decrease of 9022 bales; by Southern spinners 815,611 bales, an increase of 101,329 bales.

Textile Notes.

Anniston (Ala.) Knitting Mills will build sixteen cottages for the use of its operatives.

It is proposed to organize a cotton-mill company at Eutaw, Ala., and B. B. Barnes is interested.

Kersheede Manufacturing Co. of Hohenwald, Tenn., has erected an additional building to its lace mill.

W. P. Higgins, Columbus, Ohio, is reported as to establish in Lexington, Ky., a carpet-cleaning and manufacturing plant.

It is reported that Texas Coal & Fuel Co. of Strawn, Texas, will build a large cotton mill, to use Beaumont natural oil as fuel.

Board of Trade at Wheeling, W. Va., is negotiating for the establishment of a mill for knitting hosiery, projected by Philadelphia (Pa.) parties.

Oxford (N. C.) Cotton Mills is now installing its equipment of 5000 spindles, etc., and will be ready for producing soon. Its capitalization is \$100,000.

It is reported that the La Grange Mills of La Grange, Ga., will install plant for making cotton rope. This is a United States Cotton Duck Corporation mill.

J. M. Greenfield of Kernersville, N. C., has purchased all the machinery for his knitting mill, previously reported as to be established, and will commence operations soon.

Harriman Cotton Mills of Harriman, Tenn., has resumed operations, running 6000 spindles on the production of 8 to 30-warp yarn, single or ply, put up on warper, reels or winders.

Ettreck Manufacturing Co., Petersburg, Va., contemplates expending \$50,000 to enlarge and improve its mill, but has not made any decision; now has 9184 spindles and 262 looms.

It is stated that the stockholders of the Jackson (Tenn.) Fiber Co. have decided upon increasing plant's capacity 20 per cent. The spindles now number 20,000 and the looms 624.

T. I. Hickman of Augusta, Ga., has been appointed receiver of Millen (Ga.) Cotton Mills, with instructions to report on the condition of the property and its readiness for profitable operation.

Lockland Mills of Scotland Neck, N. C., has changed its title to Crescent Hosiery Co., with Geo. T. Andrews, president, and Charles L. McDowell, secretary. Plant has seventy-five knitting machines.

Newton (N. C.) Hosiery Mills is reported as to install twenty-five machines for the production of lace effects, and to make other improvements. Company has been operating 100 knitting machines.

Brownsville (Tenn.) Business League has been organized, and will endeavor to locate textile industries, proceeding in a systematic way to secure same. S. F. Thomas is president, and Clyde Grissam, secretary.

Messrs. J. B. Humbert, James Hammett and others of Honea Path, S. C., are endeavoring to organize cotton-mill company. At a meeting held to present the project subscriptions amounting to \$27,000 were obtained.

The Harvin Hosiery Mills of Manning, S. C., intends to put in machinery for the manufacture of cartons and other boxes for packing its product of hosiery, etc., and asks makers of the necessary machinery to send full particulars.

Dr. J. B. McMillan and Capt. S. W. Howland of Warrenville, S. C., will organize a company for the purpose of building a cotton factory, and purchased last week a tract of 200 acres on which to locate the necessary buildings.

Ouachita Cotton Mills, Monroe, La., one of the new plants, expects to commence production very soon. Only 2400 spindles and seventy-five looms will be in position at the start, although there is room for 10,000 spindles and 300 looms.

Rushton Cotton Mills, Griffin, Ga., has completed the installation of 6000 spindles and 128 looms to double its equipment, and is about to commence production from the new machinery. Probably \$100,000 has been expended for the improvements.

Alpine Cotton Mills, Morganton, N. C., is now completing its No. 2 mill of 5000 spindles and complementary apparatus that will enable the company to produce finer yarns than 8s to 14s warps, its previous production. About \$100,000 has been expended for the additional plant.

Madison Spinning Co. of Huntsville, Ala., is rapidly preparing its new plant for operations, to have 5000 spindles and manufacture thread. A 1500-horse-power engine has just been installed, and the textile machinery will be in position soon. About 100 operatives will be employed. Company is capitalized at \$100,000.

A. R. Morrison, Kutztown, Pa., is seeking location for a silk mill, and views Clarksburg, W. Va., with favor. Probably the plant will be located there. Two other large silk mills of New York are considering the establishment of branch mills at Clarksburg, and the Board of Trade is endeavoring to locate them.

Miriam Textile Manufacturing Co., Greenwood, S. C., reported incorporated in November with \$15,000 capital, has elected directors as follows: Messrs. Thos. B. Lee, T. J. Crymes, R. M. Hays and H. P. McGhee of Greenville, S. C., and S. H. McGhee of Greenwood. Plant of capacity for 2000 pounds of batting daily will be equipped.

The first annual meeting of the McComb City (Miss.) Cotton Mills was held this week, and the management's report showed creditable progress. Hundreds of bales of cloth have been shipped to various parts of the world, and the company enters upon its second year's business with good prospects. No statement as to dividend was made. Company is capitalized at \$150,000.

Riverside Manufacturing Co., Anderson, S. C., has completed building to hold the 4000 additional spindles decided on some months ago. The new machinery is now arriving and being placed in position, and the mill will have 10,000 spindles as its full complement. Operations have been conducted both day and night on 5600 spindles for some time past, producing yarns only.

J. H. Soery writes the Manufacturers' Record regarding his proposed purchase of the Bluff City Cotton Mills at Memphis, Tenn., referred to last week. Mr. Soery states that he represents interests identified with the textile industry that will, if the deal is completed, invest probably \$800,000 and employ 1800 people. Further details will be announced when they are determined.

The mill company at Clinton, S. C., reported last week as organizing, has not chosen title yet, but it is known that M. S. Bailey will be president, and C. M. Bailey, secretary-treasurer. A two-story building will be utilized to hold the 5000 spindles and 100 looms that are to be installed for the production of fancy goods. About 100 operatives will be employed; capitalization, \$60,000.

Action will probably be taken for the reduction of the capitalization of United States Cotton Duck Corporation, Baltimore and New York, from \$50,000,000 to \$30,000,000. The plan is to issue the capital in equal parts of common and preferred stock and reopen to holders of income bonds of Mt. Vernon-Woodberry Cotton Duck Co. the privilege of exchanging them for the preferred stock of the corporation.

Cedartown (Ga.) Knitting Co., reported recently as incorporated with capital of \$50,000, absorbs and will continue Wahneta Mills and Josephine Mills. The Wahneta machinery has been removed into the Josephine building and production largely increased in that plant. Probably the building until now occupied by the Wahneta plant will be equipped with textile machinery again. J. Wright Adamson is manager.

A prospectus has been issued for the Coffeeville Cotton Manufacturing Co. of Coffeeville, Kan., and it is proposed to organize, with a capital stock of \$300,000, for the erection of a plant of 10,000 spindles and 400 looms, manufacturing cotton cloth. Estimates and catalogues are now being secured from manufacturers of machinery, and correspondence is solicited. For further information address E. B. Thaw of the company.

QUOTATIONS OF COTTON YARNS.

By Buckingham & Paulson, New York, Philadelphia and Chicago, January 28.

No. 10s-1 and 12s-1 warps.....	13 1/2 @ 13 3/4
No. 14s-1 warps.....	13 3/4 @ 14
No. 16s-1 warps.....	11 1/2 @ 14 1/2
No. 20s-1 warps.....	15 @—
No. 22s-1 warps.....	15 1/2 @ 15 1/2
No. 26s-1 warps.....	15 1/2 @—
No. 6s to 10s yarn.....	13 @ 13 1/4
No. 12s-1.....	13 1/2 @—
No. 14s-1.....	14 @—
No. 16s-1.....	14 @—
No. 20s-1.....	15 @—
No. 22s-1.....	15 1/2 @ 15 1/2
No. 26s-1.....	15 1/2 @—
No. 8s-2 ply soft yarn.....	13 1/2 @—
No. 10s-2 ply soft yarn.....	14 @—
No. 8s-2 ply hard.....	13 1/2 @ 13 1/2
No. 10s-2 ply hard.....	13 1/2 @ 13 1/4
No. 12s-2 ply hard.....	13 3/4 @ 14
No. 14s-2 ply.....	13 3/4 @ 14
No. 16s-2 ply.....	14 1/2 @ 14 1/4
No. 20s-2 ply.....	15 @—

No. 24s-2 ply.....	16 @ 16 1/2
No. 26s-2 ply.....	16 @ 16 1/2
No. 28s-2 ply yarn.....	17 @ 17 1/2
No. 40s-2 ply.....	21 1/2 @ 22
No. 8s-3, 4 and 5 ply.....	13 3/4 @—
No. 20s-2 ply chain warps.....	15 @ 15 1/4
No. 24s-2 ply chain warps.....	16 1/4 @—
No. 26s-2 ply chain warps.....	16 1/2 @—
No. 30s-2 ply chain warps.....	17 1/2 @—
No. 16s-3 ply hard twist.....	14 1/2 @ 14 3/4
No. 20s-3 ply hard twist.....	15 @ 15 1/4
No. 26s-3 ply hard twist.....	16 @ 16 1/2

Cottonseed-Oil Notes.

The Concordia Cottonseed Oil Co., Limited, of Concordia, La., has been chartered, with a capital stock of \$75,000.

The Merchants & Farmers' Cotton Oil Co. of Nacogdoches, Texas, has increased its capital stock from \$30,000 to \$50,000.

The steamship Yanariva cleared last week from Savannah, Ga., for Liverpool with 39,000 sacks of cottonseed meal, valued at \$56,500, besides other cargo.

Shipments of cottonseed products thus far this season from Galveston, Texas, are as follows: Oil 30,636 barrels, cottonseed cake 522,214 sacks and cottonseed meal 1,716,932 sacks. The following quotations were made at Galveston by exporters on the 27th inst.: Cottonseed oil, prime crude loose, f. o. b. Texas mills, January, 33 1/2 to 34 cents; prime cottonseed cake, per short ton f. o. b. Galveston, January, \$25, and prime cottonseed meal, January, \$25; linters f. o. b., compressed, Galveston, choice, 3 3/4 cents; A, 3 cents, and B, 2 1/2 cents.

The following are the official quotations of cotton and cottonseed products, as posted at the New Orleans Cotton Exchange on the 27th inst.: Prime refined oil in barrels, per gallon, 42 cents; off refined oil in barrels, per gallon, 41 cents; prime crude oil, loose, per gallon, 36 1/2 cents; prime cottonseed cake, per ton of 2240 pounds, \$27.50; prime cottonseed meal, per ton, of 2240 pounds, \$28; soap stock, per pound, 1.37 cents; linters—A, per pound, 3 1/4 cents; B, 3 cents; C, 2 1/2 cents; cottonseed in sacks delivered at New Orleans, per ton of 2000 pounds, \$17; in bulk delivered at New Orleans, per ton of 2000 pounds, \$16.

Messrs. William Rider & Son, Limited, publishers of the London Timber Trades Journal of London, England, announce the issue on the 22d of February, 1902, of the twenty-ninth annual special edition. Among the leading features of this publication are the timber trade of Liverpool and Manchester districts, the home-grown timber trade of the United Kingdom, and a comprehensive review of the timber trade of 1901 at home and abroad, including the mahogany and hardwood trades. The various articles contained in this issue will be accompanied by colored maps and illustrations of the principal saw-mills and woodworking factories. A special feature will be the numerous tables of statistics, invaluable to the timber trade of the world.

The Georgia Saw-Mill Association held a meeting at Tifton, Ga., on the 21st inst., being one of the largest and most enthusiastic ever held in the history of the organization. Reports showed that mills had all the orders they could handle, and prospects were very bright for future trade. Prices on all grades of lumber, rough and dressed, were advanced \$1 per thousand feet except car material, which was advanced from \$1 to \$2. The association anticipates no difficulty in maintaining these lists and better. Reports from the North Carolina Association, held on the 20th inst., showed a general advance from \$1 to \$5 on all grades of lumber.

The lower house of the Mississippi legislature has passed a bill appropriating \$50,000 for a Mississippi exhibit at the St. Louis Exposition.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

LUMBER MARKET REVIEWS.

Baltimore.

Office Manufacturers' Record, Baltimore, Md., January 29.

There is a strong movement in many avenues of the local lumber industry, and during the past week sales of lumber have been showing an increase in volume. A good demand prevails for North Carolina pine, and, notwithstanding the recent advance in values, buyers are still anxious to get their supplies as promptly as mills can furnish the lumber. Stocks of North Carolina pine are by no means large at any of the mills, and orders for certain grades are sometimes difficult to fill promptly. The local demand during the past week from builders and others has shown considerable improvement. In white pine the market is strong, with business fairly active and stocks not excessive. Poplar, hemlock and cypress are all showing good form, with values very steady. The demand for hardwoods has been better, and from nearby towns some good orders are coming to hand. The situation in oak, ash, walnut and other woods is improving, with prices steady and stocks of dry lumber rather lighter than usual. At all milling sections in West Virginia there is unusual activity among the mills, with prospects of a good supply of logs. The local foreign export trade in hardwoods continues of moderate proportions, and shipments, while not large, continue regular. The foreign market in its present shape precludes the possibility of exporters enlarging their shipments at present.

Norfolk.

[From our own Correspondent.]
Norfolk, Va., January 27.

The week under review has shown considerable activity in lumber circles in this section, and from the present conditions surrounding the North Carolina pine market, the season will be one of an unusual character. The tone of the market for all grades and dimensions of North Carolina pine is unusually strong, and the demand most pronounced. To make the situation still more interesting comes a revival of the combination rumor of two years ago, when efforts were made to close a deal for the control of all the North Carolina pine mill and timber properties. The incorporation of the firm of Charles R. Flint & Co. last week in New York, with a capital of \$5,000,000, has been the topic of discussion among local lumber companies during the past week. It is stated that Messrs. Flint & Co. will again make another effort to consolidate the North Carolina pine industry, but with the market in its present shape, and Western men in the field competing for control, the signs for a favorable issue are somewhat uncertain. Local companies of prominence are doubtful about a combination being effected, and as all mill-owners in the North Carolina belt are well satisfied with present market conditions, being extremely firm in their views, they are unwilling to part with their properties except at outside figures. At present considerable activity prevails at all milling points, stocks being considerably reduced, and nearly all the mills running at their full capacity. At several plants of prominence considerable improvement is under way, and the capacity of mills being doubled. Everywhere there is renewed activity to meet the present demand. The firm tone to values at present, it is thought, will be maintained, and

manufacturers are well satisfied with the present outlook. A change has recently been made in the official head of the Greenleaf Johnson Lumber Co., Mr. James T. Deal having succeeded Col. W. H. Taylor of Norfolk. Colonel Taylor has been the president and general manager of the company for about four years, having succeeded the late Greenleaf Johnson in that position.

Charleston.

[From our own Correspondent.]

Charleston, S. C., January 27.

The local lumber market has been fairly active and steady so far this month, and the demand is regular, with prices tending higher. The business at all milling points in the State is good, and the various plants are generally well supplied with orders for prompt and future delivery. Reports from the interior are favorable for a good substantial trade, and shipments are improving as railroads furnish additional cars, thus relieving the scarcity prevailing for some time past. At Georgetown there is a good volume of business, the mills having all they can do to keep up with orders on file. The demand from Northern sources for yellow pine and cypress is urgent, and Georgetown millmen are not disposed to make long-time contracts. From Charleston last week shipments were light, the following departures being reported: Steamship Mokta for Liverpool with 3600 oak staves, and steamship Hulva for the same port with four cars of dogwood logs and one car of ash logs. The Norwegian steamer Snyg cleared for Kingston, Jamaica, with 80,000 feet of lumber and 150,000 shingles. The schooner Woodward Abrahams cleared for New York with 450,000 feet of lumber. The total shipments of lumber since September 1, 1901, aggregate 20,999,053 feet, against 23,027,145 feet last year. The offering of desirable vessels for carrying lumber is moderate, and rates are firm. The schooner Helen Montague, 344 tons, was taken to load lumber from Charleston to Fall River on private terms.

Savannah.

[From our own Correspondent.]

Savannah, Ga., January 27.

The prospects for trade in all lines of the lumber industry in this section of Southern Georgia are at the moment brighter than they have been for some time past. A good indication for future business are the numerous inquiries coming to hand and the decided demand existing at present for all grades of lumber. At this port immense piles of lumber are stacked along the wharves and docks awaiting shipment, and as a large fleet of vessels are now due, the outlook for an active trade in February is very promising. Mills in the interior are all running at their full capacity, and have orders for thirty or ninety days ahead. The indications under the conditions are that the movement through this and nearby ports will continue free for the spring and summer months. At the monthly meeting of the Georgia Saw-Mill Association, held on the 21st inst., prices on all grades of lumber, rough and dressed, were advanced \$1 a thousand feet except car material, which was advanced from \$1 to \$2. The association anticipates no difficulty in maintaining these prices and better. A new source of revenue to Georgia saw-mill men is the cutting by small mills of what is known as "slash pine," and a number of mills cutting 10,000 to 20,000 feet of lumber are now operating on the Plant System and at other points. During the past week about 4,000,000 feet of lumber left this port, and as a number of vessels are now due, there will be considerable lumber moving. Receipts of lumber at

Brunswick are liberal, and the demand is fair for all desirable grades. A number of vessels are now overdue, and shipments for the present month are likely to be very heavy. Freight rates are steady, the following charters having been closed during the past week: Schooner Linah C. Kaminski, 421 tons, Savannah to New York with lumber at \$5.25; schooner D. D. Haskell, 274 tons, Savannah to New York with dry cypress at \$5; schooner Ida C. Southard, 718 tons, Brunswick to New York with lumber at \$5, and schooner John H. May, 240 tons, Savannah to Philadelphia with lumber at \$5, coal out at 80 cents.

Mobile.

[From our own Correspondent.]

Mobile, Ala., January 27.

A fairly active market in all lines of the lumber and timber trade was developed last week, and while the volume of business is not above an average, the character of trade is substantial. The timber market continues to show a steady tone, and recent receipts from Brewton has added largely to present stocks on hand. Millmen are firm in their demands, and prices are very steady for sawn timber at 15 cents, with odd lots selling at 14 to 14½ cents per cubic foot. At milling points orders are plentiful, and mills have from sixty to ninety days' cutting ahead, and are not disposed to make any new business. During the past week 449,008 cubic feet of sawn timber left this port for ports of the United Kingdom and Continent. The lumber trade is quiet and firm, mills generally having considerable business. The foreign trade is dull, but the demand from the interior is brisk. At Gulfport, Pascagoula and other points there is a good coastwise and Cuban business. The shipments of lumber last week aggregated 1,102,850 feet, half of which went to Cuban ports. The shipments of lumber from this port since September 1, 1901, amount to 35,582,824 feet, against 38,372,329 feet last season. At Pensacola business is more active, and the arrivals of both steamers and sailing vessels more numerous. Receipts of timber have recently been more liberal, and stocks of timber at Ferry Pass amount to about 48,000 pieces. Ocean and coastwise timber and lumber freights continue steady, with rates unchanged. The following charters were reported last week: Schooner C. L. Davenport, 929 tons, from Ship Island to New York with lumber at \$6.12½; Spanish steamer Madrilenio, 2024 tons, from Pensacola to Liverpool with timber at 7½¢; British steamer Glenroy, 1772 tons, from Mobile to West Hartlepool with timber at 85½¢; Dutch steamer Voorburg, 1956 tons, from the Gulf to the Continent and United Kingdom with timber at 82½¢; March-April; British schooner Delta, 287 tons, from Ship Island to Port Spain with lumber on private terms, and schooner J. K. Souther, 871 tons, from Pascagoula to New York with lumber at \$6.25.

Lumber Notes.

Prices on locust pins in carload lots are wanted from manufacturers. Address Box 597, Charlotte, N. C.

The shipments of lumber last week from the port of Mobile aggregated 1,102,850 feet, of sawn timber 449,008 cubic feet, and of hewn timber 23,182 cubic feet.

The dry-kiln of Wade & McArthur and 35,000 feet of lumber at Montbrook, Fla., were entirely destroyed by fire last week. The loss is estimated at \$2500, with no insurance.

The Bedford Lumber & Manufacturing Co. of Bedford county, Tennessee, has been chartered, with a capital of \$6000. The incorporators are W. L. Wilhoite, R.

E. Evans, Harry Parker, G. A. Woods and H. B. Cowan.

The Bradley-Ramsey Lumber Co. at Lake Charles, La., shipped on the 22d inst. thirteen carloads of lumber to the Brooklyn navy-yard, to be used as decking for battleships.

The Clinch Lumber Co. of Mitchell, Ga., has been organized. The incorporators are N. S. Hodges, O. L. Kelly, W. J. Mandeville, C. C. Kelly, J. W. Smith, and possibly others.

The Martin Furniture Co. of Bessemer, Ala., has been incorporated, with a capital stock of \$10,000. The incorporators are W. L. Martin, J. T. Martin and John B. Davidson, all of Bessemer.

The East Coast Lumber Co. at East Lake, N. C., has begun operations again, after the holiday vacation. The company cut 125,000 juniper logs from September 1 to December 20, 1901.

The Florida Crosstie & Lumber Co. of Jacksonville, Fla., has been chartered, with a capital stock of \$250,000. The incorporators are C. H. Barnes, E. C. Long, W. Frazier and Howell Barrow.

The Pardee-Curtin Lumber Co.'s stave warehouse and office at Curtin, W. Va., were destroyed by fire on the 23d inst. The loss is estimated at \$10,000 to \$20,000, fully covered by insurance.

The Vaiden Furniture Factory at Vaiden, Miss., began operations on the 23d inst. under the management of W. W. Wright. A dry-kiln will be built and additional woodworking machinery put in.

At a meeting of the North Carolina Pine Association, held in Norfolk last week, it was decided to advance the price of North Carolina pine \$2 on the 1000 feet. This action was taken on account of the short supply and heavy demand.

The Italian ship Trogon Fillippo arrived at Gulfport, Miss., on the 23d inst. from Genoa, consigned to the L. N. Dantzler Lumber Co., and will load with 1,300,000 feet of lumber. She will draw twenty-three feet when loaded.

The veneering factory at Charleston, W. Va., recently established, is about ready to commence operations. All the machinery has been put in place, and the large building fully equipped for work. Large receipts of logs are looked for daily, and on arrival the plant will commence operations.

The Georgia Hardwood Lumber Co. of Macon, Ga., has been chartered, with a capital stock of \$2000, to be increased to \$25,000. The incorporators are W. W. Hallam and J. M. Mathews. The principal office will be located at Macon, Ga. The company proposes to buy and sell timber and timber lands, and do a general saw-mill business.

The Bedford Lumber Manufacturing Co. of Shelbyville, Tenn., recently incorporated, is considered one of the strongest plants of the kind in the State. The company at present is running its plant day and night in order to fill contracts. The principal stockholders are W. L. Wilhoite and R. E. Evans of Shelbyville, and M. Parker of Tullahoma.

The Southern Furniture Exposition Co. was organized on the 23d inst. at High Point, N. C., with a capital of \$25,000. The object of the company is to erect at High Point at once a mammoth building, in which will be held twice a year a furniture exhibition for the Southern factories similar to the exhibitions at Grand Rapids, New York and Chicago.

A number of small saw-mills are being started up over the Waycross section of Georgia for the purpose of cutting the timber known among saw-mill and turpentiners as "slash pine." There is some

very fine timber of this kind that has never been cut by the larger mills. Several plants cutting 10,000 to 20,000 feet per day will be started in February.

The stockholders of the John L. Roper Lumber Co. at Norfolk held their annual meeting last week, and re-elected the following officers: John L. Roper, president; George W. Roper, vice-president; L. D. Pollard, treasurer; W. B. Roper, secretary. The board of directors are John L. Roper, W. H. White, James H. Watters, George W. Roper, J. J. Ferrell and W. B. Roper.

It is said to be the intention of several large Western manufacturers of hardwood lumber to locate one of the most extensive mahogany milling plants at Baltimore. The site for the projected mill has not been selected, but the projectors have several locations offered. The projectors of the plant have large manufacturing interests in Chicago, Kansas City, Memphis and other points. It is understood that the cost of the plant, when fully equipped, will be \$75,000.

The North Maryland Lumber Co., composed of capitalists from Warren, Pa., has purchased 8000 acres of timber land lying east of Meadow mountain, bordering on the Savage river and its tributaries in Garrett county. The company will erect an up-to-date saw-mill on Poplar Lick, near the Pennsylvania line. Forty houses will be built to accommodate the working force. A broad-gauge railroad to connect with the tract will be built from the Baltimore & Ohio at a point between Bloomington and Crabtree.

It is stated that Messrs. H. B. & A. J. Shields of Cleveland, Ohio, have purchased from a real-estate dealer in Natchez, Miss., 170,000 acres of land in Concordia parish and 250,000 acres in Catahoula parish, Louisiana. The sum paid for the 420,000 acres was \$100,000, which is considered very cheap, considering the fine timber land in the deal. The purchasers will develop their property by erecting saw-mills and factories, with headquarters in Natchez. W. H. Shields telegraphs from Natchez, Miss., that the deal will be closed February 6 at Grand Rapids, Mich., the consideration being \$1,000,000.

The National Lumber Exporters' Association met in convention at Cincinnati, Ohio, last week. The principal object of the meeting was to agree upon ways and means for urging the passage of a bill introduced in Congress entitled "an act relating to the transportation of merchandise between the United States and foreign ports, to bills of lading and to certain obligations, duties and rights in connection with the carriage of property." Lumber exporters insist on clean bills of lading, and at this convention the matter was fully discussed. Resolutions were adopted making exporters of packing-house products, linseed, cottonwood, machinery, grain, dairy and other products eligible to membership, to protect shippers from undue freight rates, and for clean bills of lading, and making steamships responsible for face of same. The following officers were elected: President, Ernest M. Price, New York; vice-presidents, H. M. Saxton, Knoxville, and John L. Alcock, Baltimore; treasurer, Richard W. Price, Baltimore; general counsel, John J. McKelvey, New York; secretary and treasurer, Elliot Lange, Memphis; transportation chairman, W. H. E. Russe, Memphis; arbitration chairman, L. L. Methurdy, St. Louis; directors, L. L. Lemlum, Kansas City; George W. Speigle, Philadelphia; Thomas Powell, New Orleans, and Frederick Brenner, Chattanooga. The association adjourned to meet next January in New Orleans.

MECHANICAL.**The Foos Gas and Gasoline Engine.**

The accompanying cut represents the latest improved gas and gasoline engine

by writing to W. H. Gibbes & Co., sales agents, Columbia, S. C.

Improved Electric Hoists.

The constantly-increasing use of electric hoists causes those manufactured by the

these hoists are the rope-drum, the gearing and the electric motor. Each of these parts is made in a series of sizes. By a suitable combination a hoist of any desired capacity and speed within the limits of modern practice may be built. There

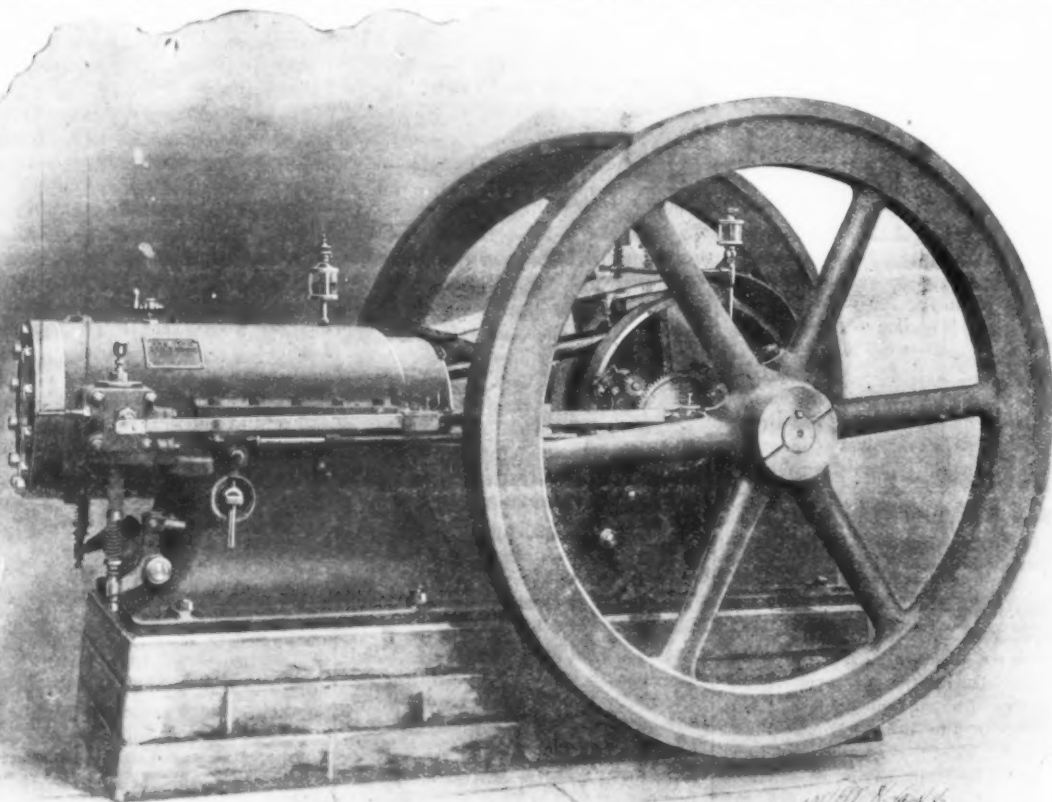
trips. These factors affect the size, operation and cost in the following manner: If the load is increased, the size, weight and strength of the mechanism will be increased—that is, a larger size must be used. If the velocity of hoisting is increased, the size and power of the motor will be increased, the other parts remaining the same. If the height to which the load is hoisted is increased, the drum must be increased to hold a longer rope, the motor remaining the same. If the frequency of the trips is increased, the size of the motor will be increased, the other parts remaining the same.

There are three methods of operating electric hoists:

First—Running the motor continuously, hoisting the load by throwing in a friction clutch and lowering by a band-brake. This method is suitable either for alternating or direct current motors. Second—Starting and stopping the motor for each lift, lowering by a band brake. This is better suited for direct current than alternating motors. Third—Running the motor forward to hoist and backward to lower. A direct-current motor, with reversing switches, is used for this work.

The mechanism of the hoist is so arranged that any size or make of motor may be used. The motor is connected to the hoist by a flexible coupling. The great flexibility of electric transmission allows hoists to be installed to advantage in many situations where it is difficult or inexpedient to use steam-driven machinery. One of the great advantages is that the expense for power begins only when the hoist is started, and entirely ceases when the motor is stopped. The friction clutch for use on an electric hoist has far different work from one used for starting shafting, which is thrown in once or twice only each day. The rope-drums used in the Hunt Company's hoist vary in diameter from twelve inches to sixty inches. The drum-barrel is sheet steel, with cast-iron flanges on each end. A suitable fastening is provided to secure the rope, and a hole is arranged in the drum, through which the surplus rope is passed and coiled on the interior of the drum. The necessary slipping of the friction surface generates heat, that must be as rapidly dissipated, or the friction surfaces would soon be destroyed. This is accomplished in these drums by making the spokes in the form of propeller blades, so that whenever the drum revolves in hoisting or lowering they force a current of air over the heated surfaces. The part of the friction generating the heat is arranged to lie directly in the path of this current of air. A remarkable difference has been noticed in rapid work between a friction clutch with this cooling device and the ordinary arrangement.

One of the difficulties in applying electricity to hoisting machinery is the neces-



THE FOOS GAS AND GASOLINE ENGINE.

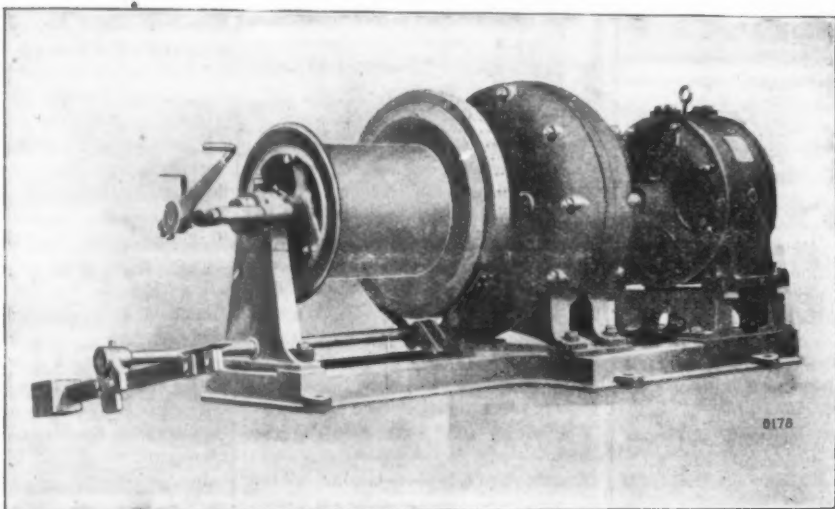


FIG. 1—ELECTRIC COAL-HOISTING ENGINE.

built by the Foos Gas Engine Co. of Springfield, Ohio. This company has had fourteen years' experience as builder of exclusively gas and gasoline engines, with the one idea continually in view—to build the best and deliver to the user at the least possible cost, first-class material and workmanship considered. The engines from two to eighty horse-power are of the single-cylinder type, as shown in the illustration, engines from eighty to 250 horse-power being of the double-cylinder type.

The Foos engines are characterized by simplicity of design, no more parts being used than absolutely necessary for efficiency of engine as a power producer. All valves are positive in action, being operated by cams, and a special feature of the mechanism is the patent wipe-spark electrode, known as the best method of ignition. Additional details can be obtained

C. W. Hunt Company of West New Brighton, New York, to be of unusual interest, since they embody so many practical features. The three essential parts of

are four factors that materially affect the size and cost of the hoist, namely, the load, the speed, the height to which the load is hoisted, and the frequency of the

sary reduction from the high rotative speed of the motor armature to the comparatively slow speed of the winding-drum. With these hoists machine-cut

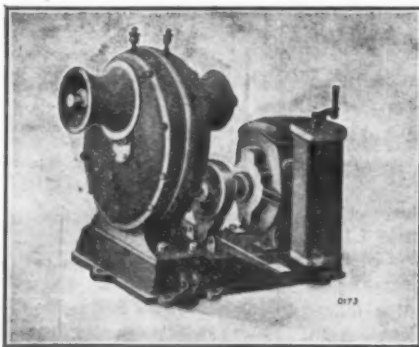


FIG. 2—DOUBLE-SPOOL WHARF WINCH.

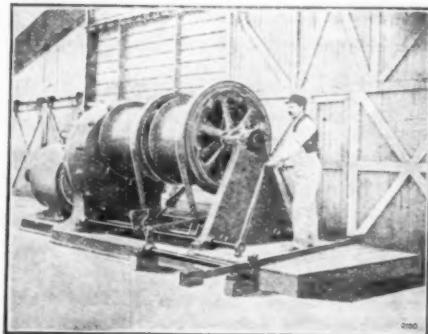


FIG. 3—DIFFERENTIAL DRUM STEAM SHOVEL HOIST.

spur-tooth gears are employed. They are hydraulically pressed on shafts that are ground true on dead centers. The gears are completely enclosed in an oil-tight and dustproof iron case, which forms a reservoir for a bath of oil in which the gears run. Powerful band-brakes are applied to the end of the drum opposite to the friction clutch, so that the heat generated in one may not affect the accurate working of the other.

The remarkable convenience of the electric hoists has been found to be an important element in their favor. They are always ready for service by simply switching on the electric current for driving the hoist. There has been such a demand that the Hunt Company now finds it necessary to carry them in stock nearly finished, so that it is only necessary for it to assemble the parts that are required in order to make the combination suited for a particular plant.

The Carver Knife-Grinder.

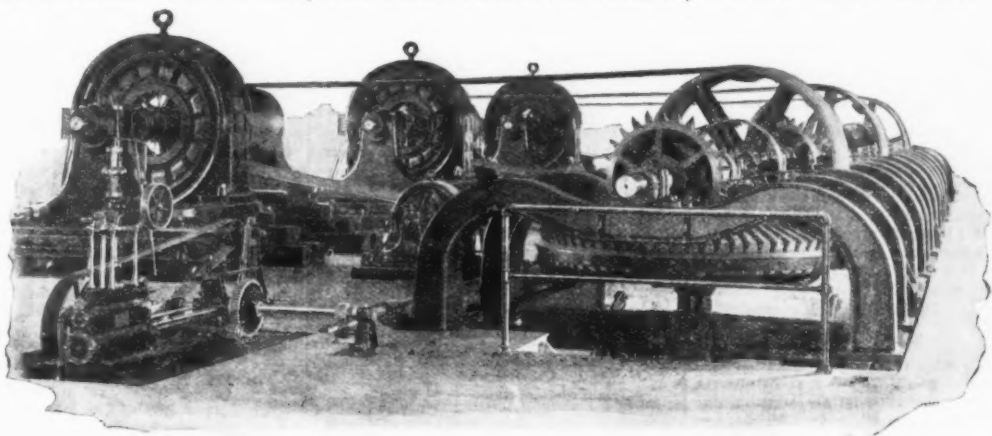
The accompanying illustration gives an idea of the merits of the Carver knife-grinder, which has been manufactured by the Carver Cotton Gin Co., especially for huller knives, although it can be used for planing and other knives requiring an absolute true edge. It can be used for either wet or dry grinding.

The frame is compact, very solid on the floor, and no jar is experienced when run-

furnished. The arbor is of best cast steel, running in self-oiling boxes, which are provided with oil covers held by springs. Loose pulleys are provided with oilless bearings. A wheel of quality best suited to the work is furnished with each machine. Further details may be obtained of the Carver Cotton Gin Co., East Bridgewater, Mass.

Interesting Mine Installation.

A very interesting electrical installation is depicted in the accompanying illustration. It is located at the plant of the Trade Dollar Mining Co. of Silver City, Idaho, and represents a series of three Westinghouse generators operated by four McCormick turbines. In all, 3600 horse-power are developed for use by the generators, which, as will be noted, are belt-driven. The turbines and generators have been in operation for over a year,



POWER PLANT OF THE TRADE DOLLAR MINING CO., SILVER CITY, IDAHO.

furnishing power for the mining machinery with very successful results.

The S. Morgan Smith Co. of York, Pa., which installed the turbines, furnished all of the other machinery with the exception of the electrical apparatus and the governor. The gates of all the wheels are operated by one type B Lombard governor working in connection with a lever gate-hoisting device, which makes it possible to dispense with all gears used in ordinary practice.

Another New Vessel

A dispatch from Newport News, Va., states that the Newport News Shipbuilding & Dry-Dock Co. has closed a contract with the Old Dominion Steamship Co. to construct another vessel for service between Hampton Roads and New York. The estimated cost is \$600,000. The steamship will be 300 feet in length and 46 feet beam, with accommodations for passengers as well as freight.

An illustration of the possibilities of industrial development in the South is seen in the Slayden-Kirksey Woolen Mills of Waco, Texas. This institution, which was established in 1884, annually consumes 1,000,000 pounds of wool, which is obtained within a radius of 150 miles of the city. This company employs 600 operatives, and from the raw product carries the wool through to the finished garment, making worsteds, cassimeres and pants, which are sold in twenty-one States, twenty-six traveling men being employed for that purpose. It is the boast of this company that under one roof it carries its work from the sheep to the finished garment, having the necessary facilities and machinery for treating the wool through all stages of preparation.

The steamship Cyclades cleared last week from Savannah, Ga., for Barcelona and Genoa with 2012 tons of high-grade Florida phosphate rock, valued at \$20,120, with other cargo.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., January 29.

The phosphate market continues to be very steady, but transactions in a local way are light. There has been some inquiry from out of town for Tennessee and Florida rock, but the sales reported are not worthy of comment. The only charters reported were the schooner A. V. S. Woodruff, 155 tons, from Grand Conception Island to New York with phosphate rock on private terms, and schooner Anna L. Mulford, 518 tons, New York to Charleston with cement at 17 cents, and back North of Hatteras with rock on private terms. Reports from Southern mining sections continue favorable, and the industry during the present year is likely to

Phosphate and Fertilizer Notes.

The Peace River Phosphate Mining Co.'s plant at Hull, Fla., recently destroyed by fire, is being rapidly rebuilt. The company is also putting its railroad in good condition.

The Union Phosphate Co. has purchased phosphate land from Brooks & Nixon, and the phosphate land and plant of the Phoenix Phosphate Co. at Mountbrook, Fla., and will begin operations in about three months.

The Aiken Kaolin Co. of Aiken, S. C., has been chartered, with a capital stock of \$50,000. The officers of the company are F. B. Henderson, president and treasurer, and J. B. McMillan, secretary. The company proposes to handle clays, minerals, etc.

The house of representatives, now in

session at Columbia, S. C., passed a resolution on the 25th inst. to appoint a commission to take steps to establish a State fertilizer plant to use the State's phosphate rock and operate a factory with convict labor.

A portion of the plant of the Valdosta Guano Co. of Valdosta, Ga., consisting of the oil mill, ginnery, boiler-rooms, wood-yard and three large tanks of oil, were destroyed by fire on the 20th inst. The main building and acid chamber were saved. The loss is estimated at between \$40,000 and \$50,000, with a partial insurance. The burned buildings will be rebuilt at once.

The Louisville & Nashville Railroad has just given out the total shipments of phosphate rock from the Mt. Pleasant district for the year 1901. The total domestic shipments for that year aggregate 222,410 tons, and for export 124,605 tons, or a total of 347,015 tons. In 1900 the shipments of rock amounted to 235,331 tons domestic and 124,299 tons export, or a total of 359,630 tons.

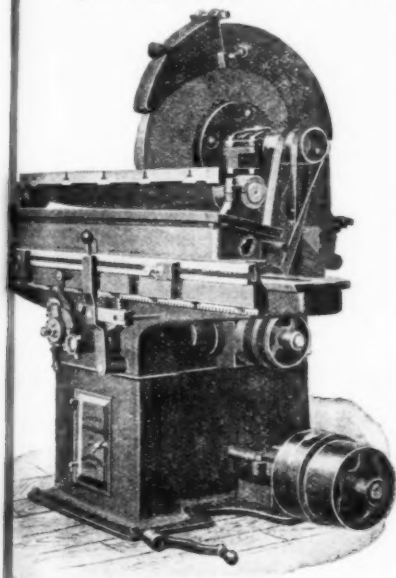
Shipments of phosphate rock from Port Tampa last week were quite active. The schooner C. S. Glidden sailed on the 26th for Baltimore with 1822 tons of pebble, and the schooner Mary T. Quimby for the same port on the 23d with 1744 tons, both cargoes from the Palmetto Phosphate Co. The Austrian steamship Miramar sailed on the 20th inst. with 1814 tons of pebble for Venice, Italy; cargo from the Green Head Phosphate Co. The British steamship Helsingborg sailed on the 21st for Helsingborg with 3697 tons from the Land Pebble Phosphate Co. The schooner Francis M. arrived on the 22d from Cienfuegos, and will take out 1800 tons of pebble from the Palmetto Phosphate Co., and the American bark Baltimore arrived on the 25th, and will take out a cargo of 950 tons of phosphate from the mines of Joseph Hull.

Fertilizer Ingredients.

The market for ammoniates has ruled fairly active and steady. The inquiry from the South is fair, and Eastern buyers are purchasing in moderate-sized lots. Sulphate of ammonia is higher. Nitrate of soda is in better demand, and values firm. There is no change in the Western situation, and stocks are firmly held.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)....	\$2 80 @ 2 92 1/2
Nitrate of soda, spot Balto....	2 00 @ 2 10
Blood	2 27 1/2 @ 2 30
Azotine (beef).....	2 30 @ —
Azotine (pork).....	2 30 @ —
Tankage (concentrated).....	2 17 1/2 @ 2 20
Tankage (9 and 20).....	2 25 & 10 @ 2 30 & 10
Tankage (7 and 30).....	21 00 @ 22 00
Fish (dry).....	26 00 @ 27 00



THE CARVER KNIFE-GRINDER.

ning. All working parts are protected from dust and water. The carriage has a constantly-reciprocating movement, and the wheel is fed to the knife automatically. The pinion that reciprocates the carriage is provided with a clutch, which allows of either power or hand movements of the carriage, and also allows the carriage to be instantly stopped without stopping the wheel. The length of the stroke is governed by adjusting stops. The feed can be set to grind as fast or fine as may be desired, and when once set for any piece of work, requires no further attention. When ground to the point for which the index is set, the feed ceases to act and the knife is not unduly wasted by further grinding. Provision is made for compensating for reduction in size of wheel after long use.

When used for wet grinding, a constant supply of water from a tank must be fed to the wheel through the adjustable hood, which prevents it being thrown off by the wheel. When desired, an automatic pump can be attached to furnish this supply of water for the wheel from a tank located on the back of the machine, using the water over and over. This is recommended when running water is not easily

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with every one interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

ALABAMA.

Anniston—Gold Mines.—H. C. Weeden has optioned gold properties in Clay county, and will organize company to develop same.

Anniston—Iron ore Mines.—T. W. Coleman, Jr., Ross Blackmon of Anniston, F. C. Mills and L. B. Miller of Cleveland, Ohio, have incorporated Muscadine Mining Co., with capital stock of \$100,000, for developing iron ore mines.

Bessemer—Furniture Company.—Martin Furniture Co. has been incorporated, with capital of \$10,000, by W. L. Martin, J. T. Martin and John B. Davidson.

Birmingham—Electric power Plant.—J. R. Adams, Robert R. Zell, F. I. Monk and John L. Burns of Birmingham, and A. L. Zell of Easley have incorporated Warrior River Power Co., with capital stock of \$500,000, to manufacture electricity either by steam or water power and distribute same for lighting and manufacturing purposes.

Birmingham—Bottling Works.—Crawford Johnson of Chattanooga, Tenn., has purchased Coca Cola bottling works at Birmingham, Ala., and will probably enlarge the plant.

Birmingham—Steel-car Works and Foundry.—Southern Car & Foundry Co. is preparing to commence erection of buildings for its car works, announced last June; entire plant will cost \$600,000, have capacity for twenty steel freight cars daily, and employ 1000 men. A malleable-iron foundry will also be built and equipped. J. M. Elliott is president.

Birmingham—Coal Mines.—W. H. Killian, Chas. A. Killian and L. W. Martin have incorporated Black Shoals Coal Co., with capital of \$200,000, for development of coal mines.

Coal City—Coal Mines.—Vulcan Coal Co. (reported lately under Cedartown, Ga., as incorporated) will operate at Coal City with capacity of 300 tons of coal per day; A. H. Van Devander, secretary.*

Entaw—Cotton Mill.—It is proposed to organize company for the erection of cotton factory. B. B. Barnes can give information.

Entaw—Cotton-oil Mill.—B. B. Barnes is interested in a movement for the establishment of cottonseed-oil mill.

Huntsville—Tannery.—R. E. Pettus, president Chamber of Commerce, is in correspond-

ence with Grand Rapids (Mich.) parties, who desire to establish a tannery at Huntsville.

Huntsville—Fire-alarm System.—City is being urged to install complete electric fire-alarm system. Alfred Moore, mayor, or H. C. Pollard, city clerk, may be addressed.

Huntsville—Cannery.—Canning factory with capacity of 10,000 or 12,000 cans per day will be established, as recently reported. Address E. B. Stewart.*

Leeds—Cotton Mill.—T. C. Thompson of Birmingham and associates will organize company for the erection of a cotton mill; probably \$250,000 will be invested.

Leeds—Brick Works.—J. B. Elliott is interested in the establishment of brick works.

Leeds—Saw-mill.—P. H. Holcomb of Leeds and Mr. Campbell of Dunavant have purchased large tracts of pine timber lands near Leeds, and will erect saw-mill.

Leeds—Canning Factory.—Dr. A. J. Forney and others are interested in establishment of cannery.

Leeds—Coal Mines.—Sam Stephens will increase output of his coal mines to 500 tons per day.

Pitt—Coal Mine.—K. P. Sheldon has discovered coal on his property, and will arrange for developing it.

Scottsboro—Coal Mines.—Bessemer (Ala.) Land & Improvement Co. will open its coal mines recently acquired at Scottsboro at once.

Scottsboro—Hoop and Stave Mill.—C. W. Carter of Winchester, Tenn., is investigating with a view to establishing hoop and stave mill.

ARKANSAS.

Eureka Springs—Bottling Works.—Eureka Water Co., reported recently as incorporated, will bottle mineral water, ginger ale and all carbonated beverages; F. N. Claffin, secretary.

Fort Smith—Ice and Cold-storage Company. Chartered: Border City Ice & Cold Storage Co., with capital of \$50,000, by J. N. Ward, president; Frank M. Ward and W. R. Ward.

Harrisburg—Mercantile.—Chartered: Poinsett Mercantile Co., with capital of \$15,000, by Harry Holmes, president; C. R. French, vice-president, and L. B. Jessup, secretary-treasurer.

Little Rock—Publication.—Chartered: Musical Topics Co., with capital of \$5000, for publishing a musical journal, by O. K. Houck, president; John W. Clouse, vice-president; Jesse T. Houck, secretary and treasurer.

Magnolia—Lumber Mill.—Chartered: Crouch-Moore Lumber Co., with capital of \$50,000, by T. G. Crouch, president; H. C. Moore, vice-president, and Alvearn Watson, secretary and treasurer.

McCrory—Mercantile.—Chartered: Thompson-Hailey Company, with capital of \$10,000, by M. D. Thompson (president) and others.

Newport—Gas Plant.—W. H. Hippolite and others have been granted franchise for gas plant.

Salem—Door and Window Factory.—John Crant contemplates erecting door and window factory.

Waldron—Lumber Company.—Scott County Lumber Co., with capital of \$20,000, has been incorporated by J. G. Forrester, president; T. G. Bates, vice-president; Daniel Hon, secretary.

FLORIDA.

Central—Saw-mill.—J. R. Allison of Abbeville, Ga., will establish saw-mill.

Hull—Phosphate Company.—Peace River Phosphate Mining Co. will reconstruct mill, fitting it with modern appliances; capacity will be 200,000 tons per year, and buildings will be 50x500 feet, one, two, three, four and five stories high, according to places.

Jacksonville—Crosstie and Lumber Mills.—Florida Crosstie & Lumber Co. has been incorporated, with capital stock of \$250,000, for conducting general crosstie, lumber and naval-stores business, by Howell Barrow, W. Frazier Jones, E. C. Long and C. H. Barnes.

Pensacola—Water-works.—It is said that W. M. Pitt will construct water-works.

Pensacola—Cigar Factory.—A. Wanish of Tallahassee, Fla., and M. Wanish of Tampa, Fla., are reported to establish cigar factory in Pensacola.

Pensacola—Baking-powder Factory.—Buffalo Manufacturing Co. has been incorporated for the manufacture of baking powder,

by J. A. Walker, president; Carl Moller, vice-president, and J. A. Avant, secretary and treasurer.

GEORGIA.

Arabi—Water Supply.—City will erect windmill and tank with capacity of 11,000 gallons of water. Address "The Mayor."

Argyle—Saw-mill.—Capt. H. T. Kennon is erecting a mill of 15,000 feet daily capacity.

Atlanta—Mining.—G. S. Schofield of Fulton county, F. M. Schofield of Fulton county and C. T. Bell of Dawson county have incorporated Owens Mining & Milling Co., with capital stock of \$1,000,000, and privilege of increasing to \$3,000,000, for developing gold, silver, copper, iron, etc.

Atlanta—Telegraph System.—Postal Telegraph Co. will expend \$500,000 in its Southern division in the extension of lines and the addition of extra wires to existing lines. C. C. Adams, superintendent third district, Eastern division, at Philadelphia, Pa., will have charge of this work, and will shortly leave for Atlanta, from which city the administration of the Southern division will hereafter be conducted, instead of from Richmond, Va., as heretofore.

Atlanta—Suspender Factory.—A. N. Sally, president, 62 Bartow street, contemplates establishing a plant for the manufacture of suspenders, garters, etc.*

Atlanta—Electrical Company.—Chartered: Georgia Railway & Electrical Co., with capital stock of \$3,000,000, by H. M. Atkinson, D. S. Arkwright, S. J. Bradley, F. H. Sisk and others.

Augusta—Paper Mill.—Fox River Paper Manufacturing Co. of Appleton, Wis., is investigating with a view to removing its paper mills to Augusta.

Carrollton—Mining.—W. A. Haygood and W. A. Haygood, Jr., of Atlanta, Ga., and Dr. Stevens T. Harris of Carrollton have chartered Phenix Mining & Realty Co. for conducting mining and realty business.

Cartersville—Iron Furnace.—A. D. Meloy of New York and associates are investigating with a view to establishing iron furnace to utilize the ores of the Blue Ridge Iron Co., the Etowah mining property and other iron properties contiguous to Cartersville.

Clarksville—Telephone Line.—J. M. Olliver of Gainesville, Ga., is constructing telephone line from Clarksville to Tallulah Falls.

Clarksville—Real-estate Company.—Chartered: Hicks-Perkins Real Estate Co., for purchasing and improving real estate.

Clayton—Saw-mill.—Bennedy & Co. of Knoxville, Tenn., will erect large saw-mill near Clayton.

Columbus—Cotton Mill.—Columbus Manufacturing Co. has ordered 7500 spindles and 25 looms, which will fit mill to its capacity of 25,000 spindles and 800 looms.

La Grange—Sewerage.—City will construct sewerage system. Address "The Mayor."

La Grange—Cotton-ropes Mill.—It is reported La Grange Mills (branch of United States Cotton Duck Corporation, New York city) will install plant for making cotton ropes.

Macon—Lumber Mills.—W. W. Hallam and J. M. Mathews have incorporated Georgia Hardwood Lumber Co., with capital of \$25,000, for manufacturing lumber and timber products.

Mitchell—Lumber Mills.—N. S. Hodges, O. L. Kelly, W. J. Madeville and others have organized Clinch Lumber Co. to conduct lumber mills.

Montezuma—Mercantile.—E. B. Lewis and others have incorporated John F. Lewis & Son Co., with capital of \$35,000.

Rockmart—Slate Quarries.—Chas. R. Haskins, Room 29, Grant Building, Atlanta, Ga., represents parties who lately secured control of slate deposits at Rockmart, and will incorporate company to develop; will erect plant with modern machinery, including mill for sawing and planing the slate.*

Savannah—Real Estate.—Chartered: Realty Improvement & Trust Co., with capital stock of \$50,000, by Robert M. Hull, J. Ferris Cann, Mills B. Lane and others.

Tallahassee—Glass Works.—Dixie Glass Works will be improved; new day tank furnace will be installed, etc.

Winder—Cotton-oil Mill.—Carolina Chemical Co., through L. C. Mobley of Monroe, Ga., has purchased seventy-five acres of land at Winder as site for proposed \$65,000 oil mill and guano works.

KENTUCKY.

Ashland—Oil Wells.—Kentucky Crude Oil Co. has been incorporated, with authorized capital of \$250,000, by V. V. Adkins, R. D. Davis, M. H. Houston, A. C. Campbell and others.

Frankfort—Oil Wells.—Hutchins Oil & Gas Co. has been incorporated, with capital of \$15,000, by Robert P. Adams of Lexington, Ky.; H. Helm of Stanford, Ky., and J. L. Hutchins of Preachersville.

Harrodsburg—Telephone System.—L. H. Carter of Lawrenceburg and Philip Pogue and J. E. Tuluff of Louisville Home Telephone Co. will organize Mercer Telephone & Telegraph Co.

Lexington—Oil Wells.—Yale Oil, Mining & Manufacturing Co. has been organized, with capital stock of \$200,000, by John J. Riley, president; C. S. Seamon, vice-president; Geo. B. Ott, secretary and treasurer. Company controls 22,000 acres of oil lands in Menifee county.

Lexington—Carpet Mill.—W. P. Higgins of Columbus, Ohio, is reported as to establish carpet-cleaning and manufacturing plant.

Louisville—Mercantile.—Ouerbacker-Gilmore Company has increased its capital stock from \$150,000 to \$175,000.

Paducah—Construction Company.—Chartered: Katterjohn Construction Co., with capital of \$25,000, by F. W. Katterjohn, Pat Holloran and W. F. Paxton.

LOUISIANA.

Abbeville—Machine Shop, Foundry and Laundry.—L. P. Hacker will erect buildings, main one 25x52 feet, to be used as machine shop, foundry and steam laundry; contract for erection let to Michael Trahan.

Jennings—Oil, Gas, etc., Wells.—Chas. A. Lowry, Judson Harris, G. A. Courtney, John Jackson and others have incorporated Travelers' Oil Co., Limited, with capital stock of \$500,000, to explore for oil, gas and minerals, and for development of same, construction of pipe lines, pumping stations, etc.

Jennings—Irrigation Canals.—U. S. Phillips is interested in a corporation organizing for construction of thirty miles of irrigation canals, with laterals for watering from 30,000 to 50,000 acres of land. Among others interested are W. W. Dusen of Crowley, La.; Miron Abbott of Crowley, and Ed. C. McMurry of Jennings.

Minden—Lumber Company.—Minden Lumber Co. has increased capital from \$10,000 to \$15,000.

New Orleans—Chartered: National Labor-Saving Office Device Co., with capital of \$5000, for the manufacture of office and school furniture, fixtures and devices, etc., by S. Jos. Webb, Louis Ruch, Herman Tonsmire and others.

New Orleans—Oil Wells.—Louisiana Petroleum Co. has been incorporated, with capital stock of \$300,000, by Chas. G. Coyle, president; A. L. Monnot, vice-president, and A. J. Landry, secretary and treasurer, for development of oil wells, coal mines, etc.

Vidalia—Cotton-oil Mill.—Concordia Cottonseed Oil Co., Limited, has been incorporated, with capital stock of \$75,000.

Vidalia—Saw-mills, Cotton Gins, etc.—Allen and Howard Shields of Cleveland, Ohio, have purchased 170,000 acres of cotton and timber lands in Concordia parish, near Vidalia, and will erect the necessary saw-mills, cotton gins, etc., for developing the property. W. H. Shields telegraphs from Natchez, Miss., that the deal will be closed February 6 at Grand Rapids, Mich., the consideration being \$1,000,000.

MARYLAND.

Anacostia, D. C.—Pickling and Packing House.—Mundell Hygeia Relish Co. will arrange for a pickling and packing house, and may add cannery later.*

Baltimore—Shoe Company.—Home Shoe Co., with capital of \$3000, has been incorporated by Cabell Calloway, Jr., Edmund B. Taylor, Howard E. Young and others.

Baltimore—Mercantile.—Barry-Von Schulz Co., with capital of \$5000, by Samuel H. Barry and others, to conduct merchandise commission purchasing agency.

Baltimore—Oil Specialty Company.—Chartered: Red Seal Oil Specialty Co., with capital of \$1000, by Samuel T. Briggs, William Dickson, George Sheridan and others, for manufacturing specialties.

Baltimore—Electric-light Plant.—John T. Blake, Geo. N. Moore and Wm. H. Evans of

Baltimore, Md.; Chas. A. Shoefford of New York and others will incorporate Maryland Electric Light & Power Co., with authorized capital of \$1,000,000, and privilege of increasing to \$5,000,000, for erection of a plant to supply electric lighting to the city of Baltimore.

Baltimore—Chemical Works.—American Sandflock & Smalt Co. has been incorporated for chemical manufacturing, by Walter Greenwood, D. T. Register, John C. Jory and others; capital \$2000.

Cumberland—Drug Company.—Truitt Drug Co. has been incorporated, with capital of \$1000, by I. Gordon Truitt, E. B. Claybrook, G. Frank Haker and others.

Easton—Sewerage.—Construction of sewerage system is contemplated; correspondence with parties interested in such work desired. Address Wm. H. Withgott, president commissioners.

Frederick—Electric-light Plant.—City is investigating with a view to installing new electric-light plant. Address "The Mayor."

Garrett County—Goat Farm.—American Angora Goat Co. has been incorporated, with capital stock of \$125,000, with Daniel E. Offutt, president; Gilmer S. Hamill, vice-president, and Peter Corbett, manager; company has secured 500 acres of land in Garrett county, on which it has placed 1000 goats.

Garrett County—Lumber Mills.—North Maryland Lumber Co., reported recently (under Maryland) as incorporated, has purchased 800 acres of timber lands in Garrett county, and will build extensive mills. A. R. Cogswell and others of Warren, Pa., are interested.

Hagerstown—Factory and Power-house.—National Window Screen Co. will soon begin erection of its proposed factory building and power-house; former will be 70x125 feet and latter 20x30 feet.

Washington, D. C.—Laundry.—Potomac Laundry Co., with capital of \$25,000, has been incorporated by W. W. Moore (president) and others.

MISSISSIPPI.

Clarksdale—Cotton-oil Mill.—Planters' Oil Works has awarded contract for entire machinery for its 50-ton mill.

Natchez—Cottonseed-delinting Plant.—The company reported recently as organizing for establishment of cottonseed-delinting plant has completed organization as the Natchez Delinter Co., with S. H. Rhodes of Concordia parish, vice-president, and M. F. Johnson of Vicksburg, Miss., secretary and manager.

Terry—Water-works.—City will construct system of water-works. Address "The Mayor."

Valden—Woodworking Factory.—New dry-kiln and additional woodworking machinery will be installed by Valden Furniture Factory, operated by W. W. Wright.

MISSOURI.

Carthage—Realty Company.—Suburban Realty Co. has been incorporated, with capital of \$50,000, by James P. Newell, H. W. Blair and E. D. Lanyon.

Joplin—Oil Wells.—Ozark Crude Oil Co., with capital stock of \$1,000,000, has been incorporated by F. C. Ralston, John S. Long, W. C. Renfrow and others.

Kansas City.—Chartered: Price-Vaughan Mail Order Co., with capital of \$20,000, by L. Price, W. T. Vaughan, P. S. Harris and others.

Liberty—Water-works.—City has voted issuance of \$42,000 of bonds for its proposed water-works system. Address B. A. Gow, city clerk.

Ozark—Canning and Lighting Company.—The Finley Canning & Manufacturing Co., reported recently as incorporated, succeeds the Ozark Canning & Lighting Co.

Poplar Bluff—Bottling Works.—W. B. Hays & Co. will build distilling and sterilizing plant; plans call for two-story building 80x60 x30 feet; cost \$20,000.

St. Louis—Refrigeration Plant.—Brockman Commission & Cold Storage Co., lately incorporated, will later on install an 8 to 10-ton refrigerating machine.

St. Louis—Decorating.—Chartered: Wright-Gilmore Decorating Co., with capital of \$5000, by Walter J. Wright, H. G. Gilmore and W. E. Georgia.

St. Louis—Chemical Works.—Chartered: Sparhawk Chemical Co., with capital of \$50,000, by Nat. Sparhawk, James McCausland and Chas. H. Walton.

St. Louis—Furnace Company.—Monarch Blast Furnace Co. has been incorporated, with capital stock of \$150,000, by A. W. Oliver, W. A. Thomas and Frank P. Fay.

St. Louis—Picture-frame Company.—Missouri Picture Frame Co., with capital of

\$10,000, has been incorporated by H. H. Gray, C. F. Ekfelt and others.

St. Louis—Soda-water Company.—Chartered: Vogel-Buol Soda Water Co., with capital of \$4000, by Chas. F. Vogel and others.

St. Louis—Lighting-rod, etc., Factory.—St. Louis Lightning Rod Co., lately reported, has purchased and will operate business of the Miller Lightning Conductor & Manufacturing Co. Address H. F. Kretzer, 1901 South Third street.

St. Louis—Real Estate.—Blumeyer Real Estate Co., with capital stock of \$50,000, by Henry W. Blumeyer, Oscar C. Blumeyer and others.

St. Louis—Manufacturing.—Chartered: Mephram & Krause Manufacturing Co., with capital stock of \$500,000, by Geo. S. Mephram, E. B. Krause and others.

St. Louis—Plumbing.—Chartered: Peter Schaeffer Plumbing Co., with capital of \$5000, by Henry E. Calvert, Peter Schaeffer and others.

NORTH CAROLINA.

Asheville—Cannery.—Thos. L. Clayton contemplates establishing a cannery and can factory.*

Craven County—Timber-land Development, etc.—O. D. Jackson Co. of Norfolk, Va., has sold 10,000 acres of swamp lands to Ohio parties (as lately reported), who will organize the Buckeye Company, to which the land will be transferred. New company will manufacture lumber and other forest products; also manufacture brick and clay products. For the present address T. J. Campbell, Bloomdale, Ohio; C. E. Hyter, Bradner, Ohio, or O. D. Jackson, Norfolk, Va.*

Drexel—Dry-kiln.—Huffman & Mull will rebuild their steam kiln, recently reported burned.

Fayetteville—Book and Music Company.—Graham Book & Music Co. (established) has been incorporated, with capital of \$8000, by B. C. Graham, president; John C. Graham, vice-president, and E. E. Graham, secretary.

Greensboro—Water-works Improvement.—The city has purchased the present water-works system, as lately reported, and is improving same by installation of a filtering plant and other machinery; at a later date new tank will be erected and new pipe laid; W. H. Osborne, mayor.

High Point—Buggy-wheel Factory.—Bickford Wheel Co., with capital stock of \$15,000, has been chartered by Messrs. Dunn and Bickford for manufacture of buggy wheels, etc., and will erect two buildings, two stories, 150x50 feet and 50x75 feet.

Kinston—Brick and Tile Company.—Kinston-Clark Brick & Tile Co. has been incorporated, with capital of \$50,000, by S. H. Abbott, W. G. Jones, Lemuel Harvey and C. F. Harvey.

Marion—Lumber Company.—Murray Lumber Co., with capital of \$20,000, has been incorporated by H. L. Murray, W. A. Murray and C. H. Locher of Lancaster, Pa.

Monroe—Bottling Works.—Monroe Bottling Works has been organized, with R. E. Evans, president and manager, and W. M. Gordon, secretary, for bottling carbonated waters, sodas, ale, etc.

Newton—Knitting Mill.—Newton Mills is reported as to install twenty-five new machines and make other improvements.

Polk County—Improvements.—Polk county has issued \$3000 of improvement bonds. Address B. F. Smith Fireproof Construction Co., Washington, D. C., for particulars.

Raleigh—Mercantile.—J. D. Riggan Co. has been incorporated, with capital of \$12,000, to deal in earthenware, toys, cakes, candy, etc. (established) at 132 Fayetteville street, by J. D. Riggan, president, and J. T. Alderman, secretary and treasurer.

Salisbury—Mercantile.—A. H. Boyden and others have incorporated as Overman & Co. to conduct grocery business, with capital of \$10,000.

Salisbury—Cotton Company.—Chartered: Boyden-Overman Company, with capital of \$3000, to conduct general cotton business.

Sanford—Woodenware Factory.—Fitts-Crabtree Manufacturing Co., reported recently as incorporated, will manufacture kitchen tables and safes, etc.*

Sanford—Water-works.—City has voted issuance of \$15,000 of bonds, and will begin work at once on construction of its proposed water-works. Address A. L. McNeill, mayor.*

Siler City—Telephone System.—Telephone company is being formed for construction of system. Address L. L. Wrenn.*

Tarboro—Printing.—A company will be incorporated, with capital stock of from \$2500 to \$5000, for establishing a printing plant; G. E. Burwell, secretary.*

Taylorsville—Flour Mill.—Taylorsville Mill-

ing Co. is being organized, with capital of \$5000, for establishing 50-barrel flour mill, to be operated by steam-power; contract for engine and boiler not yet awarded. Address E. L. Hedrick.

Wilmington—Electrical Supply and Construction Company.—Wilmington Electrical & Supply Co., recently chartered with capital of \$25,000, has completed organization with J. Walter Williamson, president; John Frank, vice-president, and T. R. Cooper of Raleigh, N. C., secretary and treasurer.

SOUTH CAROLINA.

Abbeville—Pumping Plant.—Pumping plant reported recently as burned will be rebuilt; James Chalmers, city clerk.

Aiken—Kaolin Mines.—Aiken Kaolin Co. has been incorporated to mine kaolin, clays, etc., with F. B. Henderson, president; J. B. McMillan, secretary, and capital stock of \$50,000.

Columbia—Glass Factory.—W. B. Smith Whaley, W. G. Childs, B. B. Miller and others will incorporate Carolina Glass Co., with capital of \$80,000, for the manufacture of glass.

Dillon—Mercantile.—Chartered: E. L. Moore Co., with capital of \$15,000; E. L. Moore, president, and R. S. Moore, secretary-treasurer.

Florence—Water-works.—Contract has been awarded for construction of proposed water-works, previously noted; cost \$50,000. Address "The Mayor."

Gaffney—Mercantile.—Chartered: Bristow, McAllister & Peeler, for conducting retail clothing and furnishing business, with capital of \$4000, by A. L. Peeler and others.

Honea Path—Cotton Mill.—J. B. Humbert, James Hammett and others will organize company to build cotton mill; \$27,000 has been subscribed.

Marion—Mercantile.—Chartered: Gasque Mercantile Co., with capital of \$10,000, by L. M. Gasque (president) and others.

Warrenville—Cotton Mill.—Dr. J. B. McMillan and Capt. S. W. Howland will organize company to erect a cotton mill; site of 200 acres purchased.

TENNESSEE.

Alexandria—Mineral Lands.—Alexandria Mineral Co. has been incorporated, with capital of \$10,000, by S. M. Cherry, Jr., Hal Tubbs, J. L. Davidson and others.

Charlotte—Mercantile.—Chartered: Dickson Dry Goods Co., with capital of \$5500, by J. T. Hudson and others.

Chattanooga—Machine Shops.—Standard Machine Co., Alex. Lyle, superintendent, will install additional machinery for increasing capacity.

Chattanooga—Box Factory.—Chattanooga Bottle & Glass Co. is erecting a box factory adjoining its glass works.

Chattanooga—Coal Mines.—Crescent Coal Co. has been incorporated, with capital of \$5000, by Henry Berger, J. T. Hill, Geo. D. Lancaster and others.

Hohenwald—Lace Mill.—Kersheede Manufacturing Co. has erected an additional building to its lace mill.

Jackson—Cotton Mill.—It is reported Jackson Fiber Co. will increase capacity 20 per cent.; now has 20,000 spindles and 624 looms.

Memphis—Pump and Lumber Company.—Florence Pump & Lumber Co., manufacturer of wooden pumps, spindles, wooden columns, etc., will remove its plant from Florence, Ala., to Memphis, Tenn.; structures at Memphis will cover six acres of ground, and nine acres more will be used for drying and yard facilities; C. L. Dempster, president.

Memphis—Cotton Mill.—J. H. Soery (care Peabody Hotel) is negotiating for Bluff City Cotton Mills, an idle plant, intending to re-equip same and invest probably \$800,000. He represents interests prominent in textile manufacture elsewhere.

Memphis—Pulp Factory.—Frank L. Norris, secretary of Muncie Pulp Co. of Muncie, Pa. (principal office at New York), is investigating with a view to establishing branch plant at Memphis for the manufacture of wood-pulp products and paper, the raw material to be used being the cottonwood tree; contemplated plant would cover forty acres of ground, employ 700 operatives and have capacity of 100 tons a day.

Nashville—Mercantile.—Cummins-Kirkman Company, with capital stock of \$100,000, has been incorporated by W. J. Cummins, Norman Kirkman and others.

Nashville—Mercantile.—Chartered: Andrews Grocery Co., with capital of \$2000, by W. D. Andrews and others.

Nashville—Mercantile.—Chartered: Dickson Dry Goods Co., with capital of \$5500, by A. L. Leathers and others.

Nashville—Land Improvement.—Murphy Land Co., reported during the week as incorporated, has capital stock of \$350,000, and will conduct general land-improvement business, encourage immigration and locate and establish towns, etc.

Nashville—Mining.—Emory River Mining Co. has increased capital from \$10,000 to \$25,000.

Shelbyville—Lumber Mills.—Bedford Lumber Manufacturing Co. has been incorporated, with capital of \$6000, by W. L. Wilhoite, R. E. Evans, Harry Parker and others.

Waverly—Electric-light Plant.—Waverly Electric Light Co., A. E. Justice, general manager, has purchased the incandescent electric-light plant at Florence, Ala., and will remove it to Waverly.*

TEXAS.

Austin—Dam and Power-house.—A committee has been appointed to plan and secure funds for rebuilding the dam, power-house and pumping station that was destroyed by floods over a year ago; about \$500,000 will probably be needed. Address "Water and Light Commission of the City."

Beaumont—Rice Company.—Helsig Rice Co. has been incorporated, with capital stock of \$50,000, by G. W. Carroll, J. N. Gilbert, C. L. Wallis and others.

Beaumont—Printing.—Chartered: Lamb Printing Co., with capital of \$25,000, by T. A. Lamb, Tom J. Lamb and W. P. Oldham.

Beaumont—Oil Wells.—Climax Oil Co. has been incorporated, with capital stock of \$60,000, by L. B. Morey, Leon McWhorter of Aledo, Ill.; T. D. Winders of Beaumont and others.

Beaumont—Oil and Gas Wells.—Kentucky & Tennessee Oil & Gas Co. has been incorporated, with capital stock of \$1,000,000, by J. A. Cheney of Anniston, Ala.; R. Hill of Sparta, Tenn.; T. J. Wood, H. D. Keith of Beaumont and others.

Beaumont—Tank and Tank-car Works.—Penman Steel and Iron Works has been incorporated, with capital stock of \$125,000, to construct oil storage tanks, tank cars, etc., by Wm. H. Penman of East Chicago, Ind.; H. T. Stait, R. C. Duff, J. F. Keith and E. C. Weiss of Beaumont. Company will remove to Beaumont a tank and tank-car works now at East Chicago, Ind.

Beaumont—Oil Wells.—Bluegrass Oil Co. has been incorporated, with capital stock of \$500,000, by G. W. Garrett, A. P. Findley, J. M. Edwards, A. J. Eastin and others.

Beaumont—Oil and Pipe Line Company.—Arnold Heller of London, representing English capitalists, has organized Lucas Oil & Tank Car Co., with capital stock of \$10,000,000, for securing several producing gushers and 11,000 acres of oil lands in the Beaumont district and 600 acres in Calcasieu parish, Louisiana; company will construct pipe line from Beaumont to Port Arthur and build earthen reservoirs if the nature of the ground will permit, and if not, enough steel tankage to hold 2,000,000 barrels of oil.

Beaumont—Storage Tanks.—Higgins Oil Co., W. C. Wallace, manager, has contracted for erection of seventeen storage tanks with aggregate capacity of 700,000 barrels of oil, and negotiations are pending for erection of two more tanks.

Blossom—Brick Works.—Blossom Brick Co., lately reported incorporated, will establish plant to have daily capacity of 50,000 bricks; L. J. Campbell, secretary.*

Clarksville—Mercantile.—Chartered: Farris Dry Goods Co., by R. C. Lane and others, with capital of \$20,000.

Cooper—Light and Manufacturing Company.—Cooper Light & Manufacturing Co. has increased capital from \$20,000 to \$40,000.

Corpus Christi—Mercantile.—Chartered: Gregory-Garden Company, with capital stock of \$30,000, by George W. Gregory and others.

Corsicana—Oil Company.—The oil business heretofore conducted as J. S. Cullinan & Co. will be reorganized and continue operations as the Corsicana Refining Co. under management of H. C. Folger, Jr., of New York.

Dallas—Opera-house.—Dallas Opera-House Association has increased capital from \$42,000 to \$60,000.

Dallas—Water-works.—City has voted issuance of \$50,000 of bonds for completing its water-works. Address "The Mayor."

Dallas—Jewelry Company.—Shuttles-Mitchell Company, with capital of \$50,000, has been incorporated to conduct jewelry business, by W. E. Shuttles, W. W. Mitchell and others.

Devine—Irrigation.—Devine Irrigation Co. has been incorporated, with capital of \$5000, by W. B. Adams, G. W. Hester, G. W. Morris and others.

El Campo—Rice Mill.—Large rice mill will be erected. Address Levi Paul.

El Paso—Mercantile.—Chartered: Howard-McPhetridge Company, with capital of \$20,000, by A. A. Howard and others.

El Paso—Copper Mines.—Church Mountain Mining Co. has been organized for developing a group of fourteen claims on Church mountain. Dr. L. M. Breck is president; Dr. O. C. Irvin is secretary and treasurer.

Fort Worth—Rice and Irrigation Company. Bernard Rice & Irrigation Co., with capital of \$30,000, has been incorporated by D. B. Keeler, F. E. Deldrich, C. B. Sloat and others.

Fort Worth—Mercantile.—Chartered: Fort Worth Produce Co., with capital of \$30,000, by J. E. Duncan and others.

Fort Worth—Cottonseed-oil Mill.—Tuck Beaz is reported as contemplating organization of company with capital of \$100,000 for erection of six-press cottonseed-oil mill with a 100-ton capacity.

Gainesville—Mercantile.—Chartered: Tyler & Simpson Co., with capital stock of \$125,000, by F. A. Tyler, Jr., and others.

Galveston—Oil Wells.—Union Oil Co. has been incorporated, with capital stock of \$300,000, by J. Lobit, C. Janke, A. Sundt and others.

Houston—Rice Canal, etc., Company.—Holland-American Rice Canal & Colonization Co., with capital stock of \$250,000, has been incorporated by W. T. O'Connor, C. N. Fisher and A. E. De Lipse, for operating dunes, canals, reservoirs, and for navigation, raising and milling purposes. W. C. Gilmore of Beaumont will be general manager.

Jonah—Hardware Company.—Jonah Hardware Co. has been incorporated, with capital of \$10,000, by J. M. Harrington, A. J. Johnson, C. M. Gatis and others.

Kaufman—Water works.—Contract has been awarded to O. J. Gorman of Dallas, Texas, at \$16,846, for construction of proposed water-works system.

Laredo—Water Company.—Laredo Water Co. has increased capital from \$140,000 to \$200,000.

Lockhart—Mercantile.—Chartered: Blanks Sons' Co., with capital of \$50,000, by Joe M. Blanks and others.

Missouri City—Rice Mill.—C. H. Williams will later on add rice mill to his cotton gin.

Nacogdoches—Cotton-oil Mill.—Merchants & Farmers' Cotton Oil Co. has increased capital from \$30,000 to \$50,000.

Paris—Brick Works.—Eubank Pressed Brick Co. has been incorporated, with capital of \$15,000, by W. R. Eubank, J. B. Ellis and G. F. Hicks.

Quannah—Cotton-oil Mill.—Cottonseed-oil mill to cost \$30,000 will be erected. Address J. R. Goodlett.*

San Antonio—Oil Wells.—Fairland Oil Co., with capital stock of \$50,000, has been incorporated by E. S. Skinner, Hartford, Conn.; Wm. Cassin, W. W. King and Semp Russ of San Antonio.

San Antonio—Printing.—Chartered: Buckeye Printing Co., with capital of \$5,000, by T. J. Powers, H. M. T. Broune and H. A. Moss.

Sherman—Mercantile.—Mason & Brackner Company has increased capital stock from \$20,000 to \$40,000.

Smithville—Shops.—Missouri, Kansas & Texas Railway will enlarge its shops and add ten stalls to roundhouse; A. A. Allen, general manager, St. Louis, Mo.

Strawn—Cotton Mill.—It is reported that Texas Coal & Fuel Co. will build cotton mill.

Sweethome—Cotton Gin.—C. Franks will rebuild his cotton gin, lately burned.*

Temple—Improvement.—Chartered: General Improvement Co., with capital of \$500, by F. E. Merrill, W. A. Stewart and J. T. Smither.

Velasco—Lock.—The construction of a \$250,000 lock in Brazoria county is contemplated for watering purposes. Address J. W. Elkins.

Vernon—Cotton-oil Mill.—Vernon Cotton Oil Mill Co. has been organized, with capital stock of \$50,000, for erection of the cottonseed-oil mill mentioned during the week. J. D. Hagler is president; J. C. Sumner, vice-president, and C. L. Hewing, treasurer. Address the president.

Waco—Oil Company.—Chemical Oil Co., with capital of \$50,000, has been incorporated by J. T. Harrington, James A. Harrison, A. Symes and others.

Waxahatchie—Hardware Company.—Malone Hardware Co. has amended its charter, changing name to Waxahatchie Hardware Co., with increased capital of from \$10,000 to \$20,000.

West—Publishing.—West Times Publishing Co. has been incorporated, with capital of \$800, by F. B. Whippley and others.

Wolfe City—Mercantile.—Wolfe City Dry

Goods Co. has been chartered, with capital of \$20,000, by H. D. Wolfe and others.

Wolfe City—Mercantile.—Chartered: Tittsworth-Lacy Company, with capital of \$15,000, by A. S. Lacy and others.

VIRGINIA.

Basic City—Gas Wells.—See item under Waynesboro, Va.

Berkley—Docks, etc.—The government will establish a torpedo-boat station at Berkley, and Clement Walker of Norfolk has received contract for dredging of seven slips, six of which will be 295 feet long and one 400 feet long, and the construction of necessary piers, docks, etc.; cost \$109,000.

Manchester—Shoe Company.—Stephen Putney Shoe Co. has been incorporated to succeed Stephen Putney & Co. Capital stock is \$50,000. Stephen Putney is president; Langborne Putney, vice-president and general manager; Walter H. Mills, secretary, and Lewis H. Blair, treasurer.

Norfolk—Real Estate.—Virginia Real Estate & Improvement Co. has been incorporated, with capital stock of \$10,000, and privilege of increasing to \$100,000, by H. L. Maynard, president; A. J. Phillips, vice-president; A. M. Higgins, secretary and general manager.

Norfolk—Ice Factories, etc.—Norfolk Refrigerating, Storage & Ice Co. has been incorporated, with capital stock of \$1,500,000, for operating plants of Norfolk Refrigerating Co., Norfolk Coal & Ice Co. and Lewis Feuerstein Company, reported recently as to consolidate and operate under one management; Peter Wright, president, and B. W. Leigh, secretary-treasurer.

Northumberland County—Fish Factory.—It is reported that Steven & Wacker Co. of Baltimore, Md., have purchased six acres of land in Northumberland county, and will erect a large fish factory.

Pemberton—Saw-mill and Corn Mill.—Pemberton Manufacturing Co., lately reported as incorporated, will install corn mill of 125 bushels per day capacity, spoke machinery with daily capacity of 2500 and stave mill of 40,000 per day capacity. Company already has saw-mill of 12,000 feet per day capacity.*

Petersburg—Cotton Mill.—Eittrick Manufacturing Co. contemplates expending \$50,000 to improve its 9184 spindle and 262-loom mill.

Richmond—Cheroot Factory.—Thomas Street will establish a cheroot factory.

Richmond—Brick Works.—James F. Mann of Baltimore has purchased the J. L. V. Klapp brick property, will improve same and manufacture brick.

Richmond—Iron Works.—Stock company will be organized to continue the iron works of Chamblin & Scott and considerably enlarge the plant.

Richmond—Flour Mills.—Warner, Moore & Co. have purchased Gallego Mills, and will install new outfit for grinding wheat and corn; capacity will be 1500 bushels of cornmeal, 1000 to 1200 barrels of flour and forty-five tons of mill feed in twenty-four hours.

Richmond—Asbestos Manufacturing Company.—Southern Asbestos Manufacturing Co. will make extensive improvements and enlargements to its plant.

Roanoke—Broom Factory.—H. J. Merricks contemplates establishing a broom factory.*

South Boston—Water-works and Sewerage. Plans are being prepared for construction of water-works and sewerage system. Address "The Mayor."

Staunton—Condensed-milk Factory.—A Mr. Lurand is investigating with a view to establishing a condensed-milk factory. Address care of E. Schumacker.

Waynesboro—Gas Wells.—Waynesboro & Basic City Natural Gas, Oil & Mineral Co. has been organized to bore for gas at a depth of 1500 feet. Address S. A. Austin.*

WEST VIRGINIA.

Charlestown.—Chartered: Board of Trade, with authorized capital of \$10,000, by L. Sonneborn, S. M. Ott and others, to promote industrial enterprises, etc.

Clarksburg.—Chartered: West Virginia Advertising Bureau, with authorized capital of \$10,000, by John B. Smith, W. C. Morrison, H. F. Kyle and others.

Clarksburg—Pottery.—M. W. Ferris of New Castle, Pa., will establish pottery.

Clarksburg—Pottery.—R. M. Slack of East Liverpool, Ohio, is investigating with a view to establishing pottery.

Clarksburg—Glass Factory.—New York parties represented by H. W. Foote are considering a proposition to locate a \$1,000,000 glass factory.

Clarksburg—Silk Mills.—Two large silk mills of New York contemplate establishing

branch mills. Board of Trade can give information.

Clarksburg—Silk Mill.—A. R. Morrison of Kutztown, Pa., is seeking location for a silk mill.

Elkins—Oil and Gas Wells.—Randolph-Upshur Oil & Gas Co. has been incorporated, with authorized capital of \$100,000, by John E. Heavner, H. R. Warfield, M. A. Kendall, W. G. Wilson and others.

Fairmont—Iron Works.—Fairmont Real Estate Co. has opened negotiations with Pittsburg (Pa.) parties for the establishment of an iron and steel mill at Fairmont.

Huntington—Car Works and Foundry.—American Car & Foundry Co., lately reported as erecting buildings for increasing capacity, states that the only improvement being made is erection of building 86x225 feet, in which to erect steel under-frame cars.

Mannington—Tannery.—Southern Tanning Co. has acquired tannery of Burt Manufacturing Co., and will change same from an oak leather to hemlock sole leather tannery, making extensive improvements and enlargements; product will be 400 sides of leather a day.

Morgantown—Lumber Company.—A. C. Oliver Lumber Co., with capital of \$50,000, has been incorporated by A. C. Oliver, president, and others.

Morgantown—Hardware Company.—H. C. Baker Hardware Co. has been incorporated, with authorized capital of \$25,000, by A. G. Baker, John H. Krepps, John E. Jacobs and others.

New Martinsville—Electric-light Plant.—New Martinsville Electric Light, Heat & Power Co., lately mentioned, has awarded contract for installation of its proposed plant to Mountain State Electric Co. of Wheeling, W. Va.; plant will furnish forty arc and 250 incandescent lights.

Parkersburg—Hardware Company.—Chancellor Hardware Co. has been incorporated, with capital of \$50,000, by C. B. Chancellor, C. A. Swearington, J. M. Jackson, Jr., and others.

Parkersburg—Gas Wells, etc.—Stumptown Oil & Gas Co., lately reported incorporated, is engaged in developing gas territory in Gilmer and Calhoun counties, and expects to establish manufacturing establishments in close proximity. Address V. B. Archer.

Wheeling—Brick Works.—Suburban Brick Co. is building new dry-kilns and installing additional machinery for increasing capacity.

Wheeling—Knitting Mill.—Board of Trade is negotiating for a knitting mill to be established by Philadelphia (Pa.) parties.

Wheeling—Beehive Power Plant.—Board of Trade is securing plans, estimates and other information relative to the erection of a nine-story power-house to be conducted on the beehive plan; Geo. E. House, chairman of committee.

Wheeling—Glass Novelty Works.—Wheeling Glass Letters & Novelty Co., capitalized at \$45,000, is organizing and will apply for charter to manufacture glass, glass letters (letters convex on colored glass), glass gems and other novelties; plant now located in Indiana will be removed to Wheeling, and there greatly enlarged. Otto Jaeger will be manager.

Wilsonburg—Coal Mines.—D. C. Williams of Adamston, W. Va., has purchased at \$100,000 property of Howard Coal & Coke Co.; new machinery and modern haulage system will be installed.

INDIAN TERRITORY.

Barlesville—Oil Wells.—Sam Louchheim of Little Rock, Ark., has leased oil properties, and will organize company for developing same.

Duncan—Cigar Factory.—Frank B. Hendy of Chickasha, I. T., will establish a cigar factory at Duncan.

Goodland—Cotton Gin.—Kelly-Smith Grocer Co. will rebuild its gin lately burned.

Henrietta—Coal Mine.—Hocker & Crafton are opening another slope at their coal mine.

OKLAHOMA TERRITORY.

Curtis—Real Estate.—Moreland Real Estate Co. has been incorporated, with capital of \$2000, and E. H. Krouth, president.

Lawton—Mercantile, etc.—Chartered: Graham-Barney-Dunn Mercantile, Cattle & Banking Co., with capital of \$25,000, by Craig Graham, Beloit, Kan.; S. Dunn of Lawton and others.

Noble—Mercantile.—Chartered: Farmers' Store Co., with capital of \$10,000, by J. A. Shriver and others.

Oklahoma City—Brick Plant.—Mr. Amman will establish a vitrified-brick plant.

Oklahoma City—Cracker Factory.—W. E.

Wood & Bro. of Clinton, Iowa, and T. Reuird of Oklahoma City will incorporate W. E. Wood Cracker Co., with capital stock of \$30,000, for manufacturing crackers, etc.

Oklahoma City—Brick and Tile Works.—American Brick & Tile Co., previously reported organized, has purchased site and will install plant with daily capacity of 40,000 bricks.

Perkins—Townsite.—Chartered: Main Townsite Co., by Jos. F. M. Main, D. B. Wiley, C. Gearhart and others.

Ponca City.—Chartered: Oklahoma Hospital and Nurses' Training School, with capital of \$10,000, by J. H. Cock, F. H. Vanschoiak and Rose L. Cock.

BURNED.

Beckman, Md.—P. J. Lohr's shingle mill; estimated loss \$3000.

Morgantown, W. Va.—Tygart Valley Manufacturing Co.'s planing mill; estimated loss \$10,000.

Wakefield, Md.—Wakefield Roller Mills; estimated loss \$8000.

Widewater, Va.—J. W. Baker's flour and grist mill.

BUILDING NOTES.

Abilene, Texas—Asylum.—Gainesville (Texas) Plumbing Co. has received contract at \$26,987.50 for plumbing at the new State Epileptic Asylum.

Annapolis, Md.—Naval Academy Buildings. The contract of the Noel Construction Co. (E. M. Noel, president, McCulloch and Eutaw streets, Baltimore), mentioned at some length last week, has been formally signed, and steps will be taken to commence the work. The contract provides, as altered, that the company erect the buildings for \$1,803,000, and that William S. White of New York furnish for \$640,000 the granite to be used, the first consignment of which stone will arrive in about sixty days.

Anniston, Ala.—Cottages.—Anniston Kuiting Mills will build sixteen cottages.

Baltimore, Md.—Dwellings.—Francis E. Yewell will erect seventy three-story brick and stone dwellings.

Baltimore, Md.—Store.—Henry S. Rippel has contract for making proposed enlargements to the mercantile store of S. Salomon & Co.

Baltimore, Md.—Dwelling.—Hodges & Leach are preparing plans for erection of 15-room cottage at Windsor Hills for F. Menkert, Jr.

Baltimore, Md.—Apartment-house.—George C. Morrison has purchased for himself and associates site at Park avenue and Wilson street for \$7000, and is having plans drawn by George Archer for a four-story apartment-house.

Baltimore, Md.—Hotel.—Belvidere Hotel Co., Nelson Perin, president, is negotiating with and hopes to let contract this week to W. A. & A. E. Wells, Girard Building, Philadelphia, Pa., for the erection of its proposed \$1,000,000 hotel (cost to include furnishings); 14-story structure, of granite, terra cotta and press brick; plans by D. H. Thomas, Jr., & Parker, Union National Bank Building, Baltimore.

Baltimore, Md.—Custom-house.—Henry Smith & Sons have received contract at \$72,372 for erection of the custom-house; building will be constructed of Maryland granite.

Beaufort, S. C.—Hotel.—Beaufort Hotel Co., lately reported organized for erection of hotel, will furnish plans to contractors who may desire to bid on erection of same in whole or in part; N. C. Christensen, Jr., president.

Birmingham, Ala.—Apartment-house.—John M. Caldwell and associates are having plans made by Wm. C. Weston for erection of a six-story apartment-house, of brick, stone and steel, 193x212 feet, and to cost \$150,000.

Birmingham, Ala.—Hotel Improvements.—Hotel Morris will be improved at a cost of \$20,000.

Cartersville, Ga.—Depot.—Western & Atlantic Railway will build passenger depot 35x35 feet; J. L. McCullum, superintendent, Atlanta.

Charleston, W. Va.—Station.—Chesapeake & Ohio Railway Co. will build a \$25,000 station at Charleston; C. E. Doyle, general manager, Richmond, Va.

Charlottesville, Va.—Bank Building and Residence.—Kling Lumber Co. has closed contract for the new Jefferson National Bank building, and for brick residence at the University.*

Clarksburg, W. Va.—Building.—T. J. Lynch & Co. will erect three-story brick building.

Clarksville, Ga.—Hotel.—B. W. Grant of Cornelia, Ga., is building hotel.

Clarksville, Ga.—Residence.—J. W. McMillan will erect residence.

College Station, Texas.—Laboratory.—Plans of Dodson & Scott of Waco have been accepted for erection of proposed \$25,000 chemical-veterinary laboratory at Agricultural and Mechanical College.

Columbus, Ga.—Y. M. C. A.—Plans are being prepared for proposed Y. M. C. A. building, and call for a three-story structure, with 50-foot swimming pool, etc. Address E. G. Kirven, president.

Cusseta, Ga.—Jail.—Pauly Jail Building & Manufacturing Co. of St. Louis, Mo., has received contract at about \$4000 for erection of proposed jail at Cusseta.

El Paso, Texas.—Dwellings.—R. T. Lyng has had plans made by Moore & Fitch and let contract to W. R. Jackson for erection of four two-story residences.

El Paso, Texas.—Dwellings.—C. F. Baird and D. M. Linnard are organizing company for erection of dwellings, etc.

Fort Worth, Texas.—Residence.—A. A. Hunt has awarded contract for erection of a two-story residence to cost \$4000.

Gonzales, Texas.—Church.—Baptist congregation will build a \$10,000 edifice. Address "The Pastor."

High Point, N. C.—Exposition Building.—Southern Furniture Exposition Co., organized with capital of \$25,000, will erect large building.

Hillsville, Va.—Jail, etc.—Supervisors of Carroll county have awarded contract to H. F. Smith Fireproof Construction Co., Washington, D. C., for building new county jail and adding fireproof record-rooms to courthouse; cost \$12,000.

Irwinton, Ga.—Jail.—John P. Chatfield, secretary, will open bids February 4 for erection of one-story fireproof jail building, to contain steel cage of four cells and central corridor; two cells to be tool proof and two of Bessemer steel; to contain heaters, force pump and all necessary conveniences. Plans and specifications at office of commissioners of roads and revenues. Each bid must contain certified check for \$50. Bond required and usual rights reserved.

Jacksonville, Fla.—Buildings.—Southern Improvement Co. is erecting buildings to cost \$7500.*

Jasper, Texas.—Hotel.—John Mayo will build two-story brick hotel.

Lexington, Ky.—Coliseum.—Efforts are being made to organize \$60,000 company for erection of coliseum. Address S. T. Harrison.

Louisville, Ky.—Residence.—D. X. Murphy & Bro. have made plans for \$25,000 residence for Allen R. Hite.

Manchester, Va.—Business Building.—Stephen Putney Shoe Co. will erect a business building soon.

Mangum, O. T.—Opera-house.—Mangum Opera-house Co., with capital of \$35,000, has been incorporated for erecting opera-house; G. V. Boyd, president; T. J. Bodson, vice-president, and John D. Sentell, secretary.

Mannington, W. Va.—Station and Hotel.—F. W. Bartlett has purchased site and will, it is reported, probably erect a railroad passenger station and hotel combined.

Marion, N. C.—Courthouse.—B. F. Smith Fireproof Construction Co., Washington, D. C., has contract for remodeling courthouse at Marion at a cost of \$6500.

Monroe, N. C.—Residence.—Wheeler & Runge of Charlotte, N. C., are preparing plans for \$7500 residence at Monroe for W. H. Pelk.

Murfreesboro, Tenn.—Opera-house.—Walter D. Fox and associates are erecting \$10,000 opera-house.

Nacoochee, Ga.—Hotel.—Alley Hotel, recently burned at a loss of \$5000, will be rebuilt.

Nashville, Tenn.—Theater.—Hermitage Theater Association will rebuild Vendome Theater, previously burned; cost of new structure \$50,000.

Newnan, Ga.—Library.—Mayor and council have accepted Andrew Carnegie's offer of \$10,000 for public library. Chas. L. Thompson is chairman of committee to complete plans, etc.

New Orleans, La.—Office Building.—Members of the New Orleans Maritime and Merchants' Exchange are having plans made for erection of a 12-story office and bank building to cost \$800,000. Address Fred Muller, secretary.

New Orleans, La.—Hotel Enlargement.—St. Charles Hotel will build a 12-story annex to accommodate 300 guests and to cost \$250,000.

Norfolk, Va.—It is reported that E. D. Wolf of Denver, Col., will erect theater in Norfolk.

Norfolk, Va.—Office Building.—Chas. E. Cassell, Baltimore, Md., is receiving estimates for adding three additional stories to office building of Citizens' Bank of Norfolk; present building is seven stories, 53x136 feet.

Oxford, Ga.—Science Hall.—Plans of G. L. Norman of Atlanta have been accepted for erection of \$30,000 science hall for Emory College. Address Dr. C. E. Dowman of Oxford.

Pell City, Ala.—Courthouse.—St. Clare county will issue \$10,000 of bonds for erection of new courthouse. Wm. I. Foreman, judge of probate, may be addressed.

Richmond, Va.—Dwellings.—Dr. John N. Upshur, 210 West Grace street, will erect three dwellings to cost \$25,000.

Richmond, Va.—Slaughter-house.—W. S. Forbes and James D. Patton will organize Southern Packing Co. for erection of slaughter-house at the stockyards, to cost about \$30,000.

Richmond, Va.—Power-house.—Specifications and plans for extension of the power-house of the Virginia Electric Railway & Development Co. are ready, and bids will be asked until February 5; chief item of work is about 7500 cubic yards of concrete of various classes; R. Shirreffs, chief engineer.

Richmond, Va.—Apartment-house.—Chesterfield Apartment Co. has been incorporated, with authorized capital of \$300,000, for erection of five-story apartment-house, plans for which are being prepared; building will contain two electric elevators, gas and electricity, filter plant, etc.; J. Scott Parrish, president; Wm. Todd, secretary, and W. H. Parrish, treasurer.

Round Rock, Texas.—Warehouse.—W. J. Walsh will rebuild his warehouse, lately reported burned, but not until next fall; will construct of lumber and galvanized iron.

Rutherfordton, N. C.—Courthouse.—B. F. Smith Fireproof Construction Co. has received contract for remodeling Rutherfordton county's courthouse, adding fireproof record-rooms, etc., at a cost of \$9000.

Salem, Ky.—Hotel.—Morton & Hearn, Tom George, Jesse Gray and others have organized company for erection of \$10,000 hotel.

Savannah, Ga.—Dwellings.—John A. Calhoun will build \$10,000 residence. Harold O. Ayer has purchased site at \$4000, on which he will build residence.

Snow Hill, N. C.—Courthouse.—B. F. Smith Fireproof Construction Co., Washington, D. C., has received contract for remodeling Green county's courthouse at a cost of \$6000; fireproof record-rooms will be added, etc.

St. Mary's, W. Va.—Auditorium.—St. Mary's Auditorium Co. has been incorporated for operating a public hall, by R. A. Flesher, W. C. Dotson, R. T. Browne and others; authorized capital \$20,000.

St. Marys, W. Va.—Theater.—O. H. Suck, R. A. Flesher, W. C. Dotson, R. T. Browne and R. M. Clendenen compose the company organized for erecting theater; contract will be awarded at once.

Washington, D. C.—Dwelling.—Julius Wenig is preparing plans for three-story residence 22x72 feet, ten rooms, bath and all modern improvements.

Washington, D. C.—Orphanage.—Julius Wenig is preparing plans for a three-story brick and stone orphanage for St. Mary's Church; later on hall and school building 40x132 feet will be erected.

RAILROAD CONSTRUCTION

Railways.

Atlanta, Ga.—The Atlanta, Knoxville & Northern Railroad Co. has given a mortgage to secure an issue of \$2,000,000 in 4 per cent. bonds, of which, it is understood, a part will be used to build an extension from Marietta to Atlanta, a distance of twenty miles. In connection with this report it is also stated that the Seaboard Air Line has become interested in the Atlanta, Knoxville & Northern, and may use it for a route to Knoxville. E. C. Spaulding at Atlanta is vice-president of the Atlanta, Knoxville & Northern.

Batesville, Ark.—The work of constructing the extension of the St. Louis, Iron Mountain & Southern Railroad from Batesville to the phosphate deposits on the White river has begun. The road will be known as the White River branch. Russell Harding at St. Louis is vice-president of the company.

Birmingham, Ala.—Vice-President C. J. Bushnell of the Brunswick & Birmingham Railroad Co., has recently been in Brunswick, and is quoted as saying that the line is to be completed to Birmingham sooner than the company planned. E. C. Machen, 277 Broadway, New York, is president.

Charleston, W. Va.—It is stated that grading has been completed for the Campbell's Creek Railway, and that but one and one-half miles of track remain to be completed. J. E. Dana at Charleston is president of the company.

Chesapeake Beach, Md.—It is understood that the second track to be laid on the Washington & Chesapeake Railroad, between Chesapeake Junction, D. C., and Chesapeake, Md., will extend a distance of thirty miles. Otto Mears at Washington is president of the company.

Chestnut, La.—It is announced that the Shreveport & Red River Railroad is to be extended between Campiti and Chestnut, to connect with the Louisiana & Arkansas Railway. The estimated length of the branch road is thirteen and one-half miles. J. M. Phillips at Shreveport, La., is chief engineer for the company.

Cleburne, Texas.—The business men of Cleburne have raised a bonus of \$40,000 to insure the construction of a railroad from Cleburne northwest with a view to securing a connection to Fort Worth. J. L. Cleveland is one of the committee to negotiate with the railroad promoters. It is understood that W. D. Myers of Kansas City is looking into the proposition with a view to building a line.

Cold Springs, Texas.—H. H. Everest of Clinesburg has made a proposition to build the proposed railroad between Cold Springs and Cleveland. The road will connect with the Gulf, Colorado & Santa Fe system at Springer, Texas.

Columbiana, Ala.—A report is current to the effect that the Louisville & Nashville Railroad is to be extended between Columbiana and a connection with the Saginaw Railroad, an estimated distance of seven miles. R. Montfort at Louisville, Ky., is chief engineer of the company.

Cooktown, Mo.—It is stated that the St. Louis Southwestern Railroad Co. is considering the extension of its line between Cooktown and Memphis, Tenn. M. L. Lynch at Tyler, Texas, is chief engineer.

Cuthbert, Ga.—It is announced that the Brunswick & Birmingham Railroad Co. has completed surveys for a possible extension between Cuthbert and Eufaula, Ala., a distance of twenty-five miles. E. C. Machen at 277 Broadway, New York, is president of the company.

Dallas, Texas.—M. C. Hurley of Fort Worth has secured a contract to build the extension of the St. Louis Southwestern Railroad to Dallas, and work is under way.

Decatur, Ala.—A correspondent of the Manufacturers' Record writes that F. J. O'Connell of Chattanooga, Tenn., has become interested in a proposed railroad from Decatur to a seaport on the Gulf coast, and that surveys are now in progress by way of Jasper, Ala.

Dublin, Ga.—James T. Wright, president of the Macon, Dublin & Savannah Railroad Co., informs the Manufacturers' Record that it is expected to have train service in operation between Dublin and Vidalia by March 1. The extension to Vidalia is now under consideration.

Dunn, N. C.—It is stated that seven miles of railroad have been built by the McMullen-Miller Lumber Co. between Giddensville and Daubersville. The road is to terminate at Dunn, twenty-one miles distant. W. A. McMullen at Faison, N. C., is general manager.

Elizabeth City, N. C.—C. M. Ferebee, attorney for the Elizabeth City Electric Railway & Power Co., writes the Manufacturers' Record that the capital stock has been subscribed, and the company has asked for a franchise to build its line into Elizabeth City.

Fairmont, W. Va.—A correspondent of the Manufacturers' Record writes that Thos. W. Fleming of Fairmont is interested in the projected railroad between Fairmont and Arnettville, an estimated distance of eight miles. The road will be built to reach coal mines in this section of the State, and is under construction.

Florence, Ala.—The Florence Iron, Phosphate & Railroad Co. has filed a mortgage in Alabama to secure an issue of \$300,000 in 5 per cent. bonds. The mortgage is given to the American Trust & Savings Co. of Chicago. The company proposes building from Florence to Maney, Tenn., an estimated distance of forty-five miles. Peter Arlund of Louisville, Ky., is president of the company.

Fort Smith, Ark.—Surveys in the interest of the Fort Smith & Western Railroad Co. are being made between Guthrie, Okla., and Wellston. They will be continued to Fort Smith by way of Canadian, I. T. The business men of Guthrie have raised a bonus of \$53,000 to insure the construction of the line to this city. Geo. Hayden of Ishpeming, Mich., is president of the company.

Gaines Landing, Ark.—The Mississippi, Arkansas & Western Railroad Co. has secured a charter to build its proposed road from a point in Drew county to Gaines Landing, an estimated distance of twenty-two miles. The board of directors includes A. T. Bliss of Saginaw, Mich., and J. B. Shults of Blissville, Ark.

Gallatin, Tenn.—The Nashville & North-eastern Railroad Co. has been incorporated in Tennessee to build from Gallatin to a point near Albany, Ky. The incorporators include G. M. Mallen and S. Woodward.

Galveston, Texas.—It is announced that the improvements to be made by the Gulf, Colorado & Santa Fe Railroad Co. will include the relaying of 135 miles of track with 75-pound rails and a number of bridges, to cost in the aggregate \$300,000. C. F. W. Felt at Galveston is chief engineer of the company.

Glen Jean, W. Va.—S. M. Veall, secretary of the Kanawha, Glen Jean & Eastern Railroad Co., informs the Manufacturers' Record that surveys are in progress with a view to building the road as soon as possible. It is probable that contracts will be let about April 1.

Guthrie, Okla.—The Choctaw, Oklahoma & Gulf Railroad Co. has been chartered in Oklahoma to build the proposed extension of this system between Guthrie and Holdenville, I. T., with a branch between Chandler and Shawnee. Francis I. Gowen at Philadelphia is president of the company.

Hagerstown, Md.—The Hagerstown, Smithsburg & Pen-Mar Railway Co. has been formed to build a trolley system between the towns mentioned, also to Chewsville, Md., and Waynesboro, Pa. The estimated length of the line is twenty-five miles. Among those interested are Lewis T. Byron of Hagerstown and Samuel B. Rinehart of Waynesboro. The company is capitalized at \$200,000. Jas. E. Hewes of Hagerstown is engineer.

Hamlet, N. C.—The Hamlet & Rockingham Railway Co. has been chartered by the State authorities to build an electric railroad between Hamlet and the town mentioned, an estimated distance of ten miles. The capital stock of the company is \$150,000. Among those interested are Geo. O. Saunders and M. C. Freeman.

Harrisonburg, Va.—It is stated that surveys are in progress in the interest of the Central of Virginia Railroad, proposed between Harrisonburg and Dublin, an estimated distance of 100 miles. A. A. Chapman at Harrisonburg is engineer.

Hinton, W. Va.—The Hinton, New River & Western Railroad Co. will probably construct a branch from Hinton along the Bluestone river an estimated distance of twenty miles. A. M. Hatch at Hinton may be addressed.

Jackson, Ky.—The construction of the railroad to be built by the Kentucky Lumber & Veneer Co. from Jackson to a point on Frozen creek has begun. Connection will be made with the Lexington & Eastern Railroad at Jackson.

Jefferson, Md.—Louis O. Whip of Jefferson, who is interested in the proposed electric railroad between this town and Frederick, writes the Manufacturers' Record that subscriptions are being received to the stock of the company. The estimated length of the road is eight miles.

Kenova, W. Va.—Surveys are being made for a railroad from the mouth of Pigeon creek, in Mingo county, to Kenova.

Kenova, W. Va.—It is announced that the Norfolk & Western Railroad is to be extended between Wangatuck and Kenova Bridge, a distance of about seventy miles. Surveys are now in progress. C. S. Churchill at Roanoke, Va., is engineer of the company.

Kinston, N. C.—The Kinston & Carolina Railroad Co. has elected J. W. Lynch, president; D. Quinerly, secretary, and W. C. Swift, treasurer. The directors have decided to issue bonds to the extent of \$6000 to the mile to provide for extensions.

Lumberton, W. Va.—It is stated that the railroad which is being promoted with a view to connecting the Baltimore & Ohio and the West Virginia Short Line will connect with the Baltimore & Ohio at Lumberton by a bridge across the West Fork river. It is reported that the Baltimore & Ohio Company will build the road. J. M. Graham at Baltimore is chief engineer.

Lumberton, N. C.—A report is current that the Carolina Northern Railroad will be extended from Lumberton to Fayetteville, a distance of thirty-three miles. It is also stated that the proposed extension between Marion, S. C., and Charleston will be built. Augustus Mellier, Bourse Building, Philadelphia, is president of the company.

Manteo, N. C.—It is reported that an electric railroad may be built between Manteo

and Skyko, on Roanoke Island, a distance of three miles. It is understood that Thos. A. Edison of Edison, N. J., is interested in the enterprise.

Mars Bluff, S. C.—N. S. Gibson of Winona, S. C., and W. L. Rankin of Mars Bluff are interested in the Pee Dee River Railroad Co., recently incorporated to build from Mars Bluff to a connection with the Atlantic Coast Line. The estimated distance is thirty miles.

Memphis, Tenn.—It is reported that the Southern Railway Co. has decided to relay thirty-five miles of the section between Memphis and Corinth, Miss., with 75-pound rails, in addition to other improvements. W. H. Wells at Washington is engineer.

Middlesboro, Ky.—Work is reported to have begun on the Mineral Springs Railroad from Middlesboro to coal lands eight miles distant. Connection will be made with the Tennessee Northern Railroad, it is reported, the latter extending from La Follette, Tenn.

Montgomery, Ala.—The latest report concerning the Vanderbilt Timber, Mining & Southwestern Railroad, proposed between Tallapoosa and Montgomery, is to the effect that rights of way have been secured and surveys have been completed a distance of twenty-three miles. The total length of the road will be 135 miles, five miles of which have already been built. W. W. Summerlin at Tallapoosa, Ga., is general manager of the company.

Montgomery, Ala.—W. W. Summerlin, general manager of the Vanderbilt Timber, Mining & Western Railroad Co., writes the Manufacturers' Record that the road is now under construction between Tallapoosa and Montgomery, an estimated distance of 135 miles. The principal offices of the company are located at 452 Bourse Building, Philadelphia.

Navasota, Texas.—J. L. Nettleton of Madisonville, Texas, is interested in a proposed branch of the Houston & Texas Central Railroad between Navasota and Madisonville.

New Braunfels, Texas.—The business men of New Braunfels are considering a plan to build a railroad from Seguin to New Braunfels by way of San Marcos. If built, it will connect the Southern Pacific with the International & Great Northern system. Henry Landu of New Braunfels, it is reported, is one of the promoters.

New Martinsville, W. Va.—A correspondent of the Manufacturers' Record writes that the Baltimore & Ohio Railroad Co. is planning the construction of yards, which will comprise about thirty miles of track, in the vicinity of New Martinsville. J. M. Graham at Baltimore is chief engineer.

Oakhurst, Texas.—The Columbia Lumber Co. is constructing the Trinity Valley & Southern Railroad between Oakhurst and Point Blank, a distance of eight miles.

Oklahoma City, Okla.—Messrs. Brazil & Hunt of Lamont, Okla., it is reported, are interested in a railroad between Oklahoma City and Caldwell, Kan., an estimated distance of ninety-five miles. It is reported that the road, if built, will be a branch of the Missouri Pacific system.

Parkersburg, W. Va.—A report is current to the effect that Henry C. Jackson of Parkersburg is negotiating for the construction of a railroad in Gilmer county to reach coal lands which he and others have leased.

Pensacola, Fla.—The city authorities have approved the ordinance allowing the Louisville & Nashville Railroad Co. to increase its terminal facilities in the city. R. Montfort at Louisville, Ky., is chief engineer.

Petersburg, Va.—Work has commenced upon the railroad being built by the Petersburg & Claremont Terminal Co. between Petersburg and Claremont. Geo. R. Seay at Petersburg is president of the company. It is reported that the line may be extended further west from Petersburg when the present section is completed.

Port Lavaca, Texas.—It is understood that the Southern Pacific Railway Co. is considering the construction of a branch about ten miles in length to what is known as Green Lake, to reach rice plantations in this portion of the State. G. W. Boschke at Galveston is engineer.

Princeton, Ky.—W. F. Katterjohn of Paducah, Ky., has recently closed a contract with the Illinois Central, it is stated, to furnish ballast and convert tunnels into cuts, at an estimated cost of \$1,500,000. Most of the work will be done near Princeton.

Quanah, Texas.—The latest report concerning the Oklahoma City & Texas Railroad is to the effect that about thirty miles of grading have been completed. The estimated length of the road is about 188 miles. C. V. McClure at Quanah is engineer.

Quintana, Texas.—The extension of the Cane Belt Railroad decided upon to Quintana, it is announced, is to be completed by September 1.

Final surveys have been made for the route. W. T. Eldridge at Eagle Lake, Texas, is general manager of the company.

Rixville, Ga.—The State authorities have authorized an amendment to the charter of the Wadley & Mt. Vernon Railroad, giving it the right to build the proposed extension from Rixville to Valdosta, Ga., an estimated distance of 200 miles. The road is now in operation between Wadley and Rixville, a distance of thirty miles. G. D. Tysor at Wadley is general manager.

San Antonio, Texas.—B. F. Yoakum, president of the St. Louis & San Francisco Railroad Co., advises the Manufacturers' Record that surveys have been made for the proposed extension between San Antonio and Brownwood, but as yet no decision has been reached in the matter.

Seneca, S. C.—A bill is pending in the legislature to charter the French Broad & Southern Railway Co., which, it is stated, intends building an electric line from a point on the Southern system near Seneca to a point in North Carolina. Among those reported as interested are B. L. Alvey and J. Q. Marshall of Columbia, S. C.

Stephenville, Texas.—The Oklahoma & Texas Southern Railway Co. will issue bonds to the extent of \$2,000,000, if given legislative authority, to finance the construction of this line between Stephenville and Spanish Fort, on the Red river. The estimated length of the line is 125 miles. W. A. Squires of Henrietta, Texas, is president.

St. Joseph, Mo.—John Donovan is vice-president of the Union Terminal Co., which proposes building a railroad in the suburbs of St. Joseph, which will be about three miles in length.

St. Louis, Mo.—W. S. McChesney, Jr., has been elected general manager of the St. Louis Terminal Co., organized to build a line in the suburbs, which will be about eighteen miles in length. A portion of it is under construction.

St. Louis, Mo.—It is understood that a double-track line is to be constructed into the suburbs by the St. Louis Exposition authorities for transporting material for the exposition. Chief Engineer Phillips may be addressed.

St. Louis, Mo.—It is stated that the St. Louis, Iron Mountain & Southern Railroad Co. has made surveys to rebuild a portion of its line, also to construct a number of depots, as well as repair shops, and to rebuild several bridges. H. Rohwer at St. Louis is chief engineer of the company.

St. Paul, Va.—L. M. Jarvis of Sneedville, Tenn., one of the promoters of the Powell's Mountain Mineral Railroad, informs the Manufacturers' Record that the total length of the line will be fifty-five miles. It is proposed to build from a connection with the Southern system in Eastern Tennessee along the Clinch river valley to St. Paul. The Ohio River & Charleston Railroad Co. may construct an extension to form a connection with the Powell's Mountain Railroad at Clinchport, Tenn.

Tallahassee, Fla.—J. P. Williams of Savannah, Ga., president of the Georgia, Florida & Alabama Railroad, confirms the report in the Manufacturers' Record that the extension from Bainbridge to Tallahassee is being completed. It is expected to have train service to Tallahassee by February 20.

Tallulah Falls, Ga.—It is stated that surveys have been completed for the extension of the Tallulah Falls Railroad Co. between Tallulah Falls and Franklin, N. C., and that work will begin about July 1. The estimated length of the extension is forty miles. W. S. Erwin of Tallulah Falls is manager.

Trussville, Ala.—A report is current to the effect that the Seaboard Air Line is making surveys for a line between Trussville and Marietta, Ga., by way of Anniston. The estimated length of the road is about 150 miles. W. W. Gwathmey, Jr., at Portsmouth, Va., is chief engineer of the company.

Washington, D. C.—A bill has been introduced in the Maryland legislature allowing the Baltimore & Potomac Railroad Co. to build branches in the District of Columbia in the interest of the new terminal station at Washington.

Welch, W. Va.—It is stated that contracts have been let for six miles of the proposed railroad along the Tug river, which will connect with the Norfolk & Western system at Welch. John T. McKinney and Lane Bros. have secured the contracts. C. S. Churchill at Roanoke, Va., is engineer of the Norfolk & Western.

Street Railways.

Johnson City, Tenn.—The Johnson City Traction Co. has been chartered, with \$45,000 capital stock, by John J. Bowman, John Saunders and others.

Moundsville, W. Va.—The Citizens' Elec-

tric Railway Co., which has been chartered to build a line to the eastern limits of the city, is capitalized at \$100,000, and includes W. D. Alexander and W. H. Hunter of Moundsville.

Savannah, Ga.—The Savannah Electric Co. has asked for a franchise to build several additional tracks in the city to extend its trolley system. G. O. Nagle is manager.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Barrel Machinery.—See "Woodworking Machinery."

Belting and Pulleys.—See "Ginnery."

Blower System.—See "Exhauster."

Boiler and Engine.—See "Quarrying Equipment."

Boiler and Engine.—Tony Rasch, Florence, Ala., wants engine and boiler.

Boilers and Engine.—Washington Litholite Stone Co., Albert Lake, manager, 913 G street N. W., Washington, D. C., is in the market for second-hand boilers and engine, about fifteen to twenty-five horse-power.

Brick Machinery.—Messrs. Frazer & Frazer, Carthage, Texas, are in market for brick machinery.

Broom Machinery.—H. J. Merricks, Roanoke, Va., wants to correspond with manufacturers of broom machinery; also wants prices on broom-corn, etc.

Building Material.—Southern Investment Co., Jacksonville, Fla., wants hardware for buildings.

Building Materials.—King Lumber Co., Charlottesville, Va., is in the market for revolving doors, steel ceiling, ornamental iron work, etc., and about 700 barrels lime and cement.

Can Machinery.—J. K. Worrell, Richmond, Ky., may want machinery for making a patent tin can.

Cannery.—See "Cannery."

Can Manufacturers.—See "Cannery."

Cannery.—See "Pickling and Packing House."

Cannery.—E. B. Stewart, Huntsville, Ala., wants to correspond with manufacturers of cannery machinery and tin cans.

Cannery.—Thomas L. Clayton, Asheville, N. C., will be in the market for canning-factory equipment and cannery machinery.

Corn Mill.—Pemberton Manufacturing Co., Pemberton, Va., will want corn mill of 125 bushels per day capacity.

Cotton Ginnery.—J. Frank Faulkner, Kings Creek, N. C., will be in need of a ginning outfit.

Cotton Ginnery.—W. L. Stewart, Rainbow, Texas, wants to buy three-gin outfit of sixty saws.

Cotton Ginnery.—C. Franks, Sweethome, Texas, will need two ginstands, grist mill, cotton elevator, belting and pulleys.

Cotton Machinery.—E. B. Thaw, Coffeeville Cotton Manufacturing Co., Coffeeville, Kan., wants catalogues, price-lists, etc., from makers of cotton-mill machinery.

Electrical Machinery.—Thompson, Son & Co., 107 Liberty street, New York, N. Y., want quick-delivery prices on 75 to 150-kilowatt, 230-volt, 60-cycle, two-phase alternator and exciter.

Electrical Machinery.—Jupiter Milling Co., Jupiter, N. C., wants second-hand 20-horse-power electric motor for alternating current, 500 volts, speed 800 to 1200 per minute.

Electric-light Plant.—Louisville Manufacturing Co., Louisville, Ga., is in the market for dynamo and electric outfit for capacity of about 800 incandescent and fifteen arc lights, 100 to 200 horse-power transmission.

Elevator.—Riverside Brick Co., Montgomery, Ala., wants to purchase an electric freight elevator.

Elevator.—High Point Furniture Co., High Point, N. C., is in the market for a power elevator, one ton burden, for two stories.

Engine.—See "Saw-mill."

Engine.—See "Printing Equipment."

Engine.—See "Refrigerating Machine."

Engine.—John Davis, 81 Haverhill street, Boston, Mass., wants 20 to 24-inch cylinder steam engine, slide valve.

Engine.—Thompson, Son & Co., 107 Liberty street, New York, N. Y., want quick-delivery prices on 300 and 400-horse-power automatic engine.

Engine.—Waverly Electric Light Co., A. E. Justice, general manager, Waverly, Tenn., is in need of high-speed engine, 80 to 100 horse-power; new or second-hand.

Excelsior Machinery.—See "Woodworking Machinery."

Exhauster.—Flitts-Crabtree Manufacturing Co., Sanford, N. C., will buy second-hand exhauster, thirty-five inches, and 50-foot galvanized pipe for same, to remove dust from machines.

Feather Machinery.—L. Lowenstein & Son, Nashville, Tenn., want names of manufacturers of feather renovators, choppers or crushers, and other feather machinery.

Fencing.—See "Wire."

Fire Engines.—N. B. Murff, comptroller, Shreveport, La., will open bids February 6 for purchase of one first-class fire engine and one second-class fire engine; bids to be made separately. Apparatus to be delivered f. o. b. cars Shreveport.

Foundry.—See "Wrench Works."

Foundry.—Eclipse Manufacturing & Plating Co., Birmingham, Ala., wants names of firms that make patterns in iron for grates and frames, etc.

Gasoline Engine.—See "Refrigerating Machine."

Grist Mill.—See "Ginnery."

Hoisting Engine.—Blossom Brick Co., Blossom, Texas, wants hoisting engine.

Ice Plant.—Z. C. Chambliss, Ocala, Fla., wants to correspond with manufacturers of ice plants and cold-storage machinery.

Ironworkers.—See "Foundry."

Lumber.—Box 597, Charlotte, N. C., wants names of manufacturers of locust pins in carload lots for immediate shipment.

Mining Equipment.—Vulcan Coal Co., A. H. Van Devander, secretary, Cedartown, Ga., may be in the market for coal-mining machinery in sixty days.

Oil Mill.—J. B. Goodlett, Quanah, Texas, wants to correspond with manufacturers of cottonseed-oil-mill machinery.

Paper-box Machinery.—Harvin Hosiery Mills, Manning, S. C., wants addresses of makers of machinery for making paper boxes, such as cartons for hosiery, etc.

Pickling and Packing House.—Mundell Hygela Relish Co., Anacostia, D. C., wants machinery for pickling and packing house; also for cannery.

Printing Equipment.—G. E. Burwell, secretary, Tarboro, N. C., wants to correspond with parties furnishing printing outfits, including cylinder press, large and small jobbers, type and other materials; also wants gasoline engine of three or four horse-power.

Pump.—See "Water-works Machinery."

Quarrying Equipment.—Chas. R. Haskins, Room 29, Grant Building, Atlanta, Ga., wants 60-horse-power engine and boiler, steam hoist, drills, saw tables, planers, rubbing beds, etc.

Railway Equipment.—Huffman Bros., Apold, Va., are in the market for two miles of 25-pound relaying rail and a three-ton narrow-gauge engine.

Railway Equipment.—W. D. Prickett & Son, Lock Box 172, Asheville, Ala., want to lease 125 tons of 30-pound rails, one light locomotive, one light passenger car and two freight cars, all second-hand.

Railway Equipment.—Vanderbilt Timber, Mining & Southwestern Railway Co., 426 Bourse Building, Philadelphia, Pa., wants bids on ten miles of 65-pound steel rails and fixtures, both new and second-hand; 35-ton locomotive, new and second-hand, and five new flat cars.

Refineries.—R. A. Josey, Josey Investment Co., Beaumont, Texas, wants information on cost and construction of refineries for treating Beaumont crude petroleum.

Refrigerating Machine.—Brookman Commission & Cold Storage Co., St. Louis, Mo., will, in about two months, want an 8 or 10-ton refrigerating machine, condenser, gasoline engine, etc.

Roofing.—Blossom Brick Co., Blossom, Texas, is in the market for roofing.

Saw and Planing Mills.—J. H. Hicks, Clarksville, Ga., wants to correspond with manufacturers of saw and planing mills.

Saw-mill.—F. L. Agee, Ransons, Va., wants second-hand saw-mill and engine, engine

mounted and saw-mill to match, with three headblocks.

Shingle Machine.—E. A. Hawes, Atkinson, N. C., wants to buy a shingle machine, second-hand or new.

Soap Machinery.—Silver Star Soap Works, Columbia, Tenn., wants to buy second-hand soap press and one or two second-hand soap frames.

Standpipe.—Bids are wanted on a 20x100-foot standpipe of best steel, with ladder outside. Send specifications and estimates at once to San Angelo (Texas) Water-Works Co.

Suspender Machinery and Supplies.—A. N. Sally, president, 62 Bartow street, Atlanta, Ga., wants to correspond with manufacturers of suspender and garter machinery and supplies.

Tank.—John Davis, 81 Haverhill street, Boston, Mass., wants iron tank 5x8 feet and three to four feet deep.

Telephone Equipment.—L. L. Wrenn, Siler City, N. C., wants estimates on cost of telephone equipment, including phones, wire, etc.

Umbrella Furnishings.—L. J. Harris, 659 Plum street, Macon, Ga., wants names of parties from whom he can purchase umbrella furnishings for manufacturing purposes.

Water-works.—See "Standpipe."

Water-works.—"The Mayor," Terry, Miss., will open bids February 18 for construction of water-works in accordance with plans and specifications of C. H. Jenks, engineer, St. Louis, Mo., now on file in mayor's office. Certified check for 5 per cent. of amount of bid must accompany each proposal; bond required and usual rights reserved. For synopsis of specification, address Eugene Simpson.

Water-works Machinery.—A. L. McNeill, mayor, Sanford, N. C., wants bids on compound steam duplex pump of 500 gallons per minute capacity, working against 150 pounds pressure, to be brass fitted; also second-hand pump of like capacity, refitted.

Well-drilling.—Waynesboro & Basic City Natural Gas, Oil & Mineral Co., S. A. Austin, secretary, Waynesboro, Va., wants bids on drilling 1500 feet deep.

Wire.—W. W. Marshall, Elkton, Va., wants to buy fence and barb wire by the 1000 pounds.

Woodworking Machinery.—Pemberton Manufacturing Co., Pemberton, Va., wants lathes for turning spokes, stave and beading.

Woodworking Machinery.—Bridgewater Mills, Fredericksburg, Va., wants addresses of makers of machinery for whiskey barrels and excelsior.

Woodworking Machinery.—John Davis, 81 Haverhill street, Boston, Mass., wants heavy wood planer, four sides, to plane at least sixteen inches thick, twenty-four inches wide.

Woodworking Machinery.—Buckeye Company, care of O. D. Jackson, Norfolk, Va., will be in the market for mill and machinery for manufacture of lumber and other forest products.

Wrench Works.—Edward L. Utley, Fayetteville, N. C., wants estimates on equipment of plant to cost \$3000 to \$4000 for manufacture of a new wrench. Specifications may be obtained on request.

TRADE NOTES.

Declared a Dividend.—The regular quarterly dividend of 1½ per cent. on the preferred capital stock of the American Graphophone Co. will be paid February 15 to stockholders of record February 1.

A Popular Material.—The best proof that Paroid roofing, manufactured by Messrs. F. W. Bird & Son of East Walpole, Mass., is popular with builders is the fact that the sales for 1901 were more than double the figures for the previous year.

Another Large Order.—The M. A. Meyer Estate, Chicago, is installing an electric plant in its building at Van Buren and Franklin streets. The Ball Engine Co., Erie, Pa., furnishes the engine, which is direct-connected to a 100-kilowatt Western Electric generator.

New Architectural Firm.—Wm. A. Edwards and Frank C. Walter announce the copartnership under the title of Edwards & Walter, with offices in the Kendall Building, Columbia, S. C. They will offer their services as architects, and are prepared to execute plans of any kind desired.

Large Contract.—Home Industry is evidently appreciated at Charlottesville, Va., where the King Lumber Co. has secured a contract to construct the building for the Jefferson National Bank, also a residence addition to the university. The King Company is well known in this portion of the

South on account of the reliability of its work.

Formed a Partnership.—The firms of Hayden, Wheeler & Schwend, also Wheeler, McMichael & Co., so well known in the South as architects, have been succeeded by Messrs. Wheeler & Runge, comprising O. D. Wheeler and Niel Runge. The firm will have its headquarters at Charlotte, N. C., and will be prepared to undertake contracts both large and small.

For the Emperor's Yacht.—The American Ship Windlass Co. of Providence, R. I., will furnish the windlass for the yacht being built in this country for the Emperor of Germany. The American Company has been successful in supplying this apparatus to a large fleet of pleasure craft, and manufactures a windlass which is especially suitable for the purpose.

Orders Increasing.—The Chicago Pneumatic Tool Co. reports that orders for compressors, pneumatic tools and appliances, including cranes and hoists, received in the first half of January equal the total December business, which was greater than that of any preceding month. This also includes an order for eighty tools from the Cramp Shipbuilding Co.

Of Interest to Manufacturers.—The Henry Walke Company of Norfolk, Va., carries in stock an extensive assortment of lathes, drills, planers and other metal-working machinery, while it makes a specialty of high-class woodworking apparatus, as well as pumps and pneumatic tools. Included in its line of goods are the famous Erie City Iron Works engines and boilers. The company will be pleased to give estimates and prices on application.

A Promising Outlook.—Orders from both the home and foreign markets recently received by the New Process Rawhide Co. of Syracuse, N. Y., are so numerous that the outlook for the year is very promising. The orders include one from the British Westinghouse Electric & Manufacturing Co. for sixty of the New Process noiseless phones, which will be used in the company's plant on motors for driving machine tools, electric cranes, etc. They will transmit from five to forty horse-power each.

An Indication of Progress.—The ice-making business forms an accurate indication of the prosperity of the country or any particular section. The York Manufacturing Co. of York, Pa., is a good barometer of business conditions, for it depends upon nearly every State and Territory for its market. Judging from recent orders it has secured for ice-making and refrigerating machinery, the wave of prosperity continues of large proportions, as contracts have come from Pennsylvania, Louisiana, New York, Ohio, New Jersey, Texas, Massachusetts, Colorado, Missouri, Kansas and Oklahoma.

An Important Industry.—The plant of the Knoxville Wheel & Foundry Co. at Knoxville, Tenn., promises to be one of the most important industries in the South. It will be provided with up-to-date equipment for the manufacture of high-grade castings and car wheels, and the company will make a specialty of the mining trade. The plant is exceptionally well located for business. W. P. Richards is president; A. T. Richards, vice-president, and W. D. Williams, secretary and treasurer, while the superintendent, Mr. O. H. Johnson, is a well-known expert, having had fifteen years' experience in the business.

From Far-Away Japan.—One of the largest electric-lighting companies in Japan has been obliged to come to America for a part of its equipment. It is the Nagasaki Electric Light Co. of Nagasaki, which has given a contract to the Aultman & Taylor Machine Co. of Mansfield, Ohio, to furnish the necessary boilers for its plant. The contract provides that they be equipped with the noted Reliance safety water columns manufactured by the Reliance Gauge Column Co. of Cleveland, Ohio. The order forms a high testimonial to the reputation of the apparatus manufactured by the companies mentioned.

Important Receiver's Sale.—The property of the Huntsville Gaslight Co. of Huntsville, Ala., will be sold by order of the court on March 13 at Huntsville, the date of sale having been postponed. As will be noted in the advertisement to be found elsewhere in this issue, the charter of this company is perpetual, and gives it broad powers. The city has a population of 15,000, and is one of the most important manufacturing centers in the South; consequently, a valuable opportunity is offered anyone who desires to invest in such property. Oscar R. Hundley, re-

ceiver, will be pleased to give additional information.

A Strong Testimonial.—The union railroad bridge which crosses the Monongahela river at Pittsburgh, Pa., is subjected to very severe tests, as it is used for transporting molten metal between furnaces and mills, and is not only subjected to the heat from the metal, but to sulphur fumes from locomotives and steamers, as well as industries in the vicinity. To properly protect it the engineers in charge of the bridge are using Dixon's silica-graphite paint, manufactured by the Joseph Dixon Crucible Co. of Jersey City, N. J. It is found that this compound prevents corrosion and other injury, and offers perfect protection.

Compelled to Expand.—When an industry is most treble the capacity of its output it is perhaps the best indication that can be given of the ability of its management and the reputation of its wares. The Franklin Steel Castings Co. of Franklin, Pa., which makes a specialty of high-grade castings, is now making improvements to its plant, which will increase its product to the extent mentioned. One of its appliances which is very widely known to railroad men is the Lone Star coupler, which represents a combination of very valuable features. Its open-bearing castings are especially suitable for electrical purposes, and are manufactured in any desired shape and size up to 60,000 pounds weight.

Many Large Contracts.—J. J. Ryan & Co., brass founders and finishers, 68-74 West Monroe street, Chicago, report receiving contracts for the brass nickel-plated trimmings for the marble closet and urinal stalls and lavatories for the following buildings: Pasavant Hospital, Chicago; Mercy Hospital, Chicago; Wesley Hospital, Chicago; Rush Medical College, Chicago; Manufacturers' Building, Chicago; National Life Building, Chicago; Chicago Commons, Chicago; Grand Opera-House, Cincinnati; McLean County Courthouse, Bloomington; Montana State Capital, Helena; United States Postoffice, Streator, Ill.; United States Postoffice, Monmouth, Ill.; United States Postoffice, Elgin, Ill.; Draper Building, Honolulu, H. I.

Opportunity to Investors.—Elsewhere in this issue an advertisement will be found relative to an issue of \$100,000 in 6 per cent. bonds, which constitute a first mortgage upon the property of E. B. Bailey of Monticello, Fla. The property consists of 13,000 acres of land, of which 5000 acres are in cultivation. The owner believes that petroleum exists in this section, and offers investors an interest in any oil or mineral which may be found, in addition to the security on the property. Crops of sugar-cane, corn and cotton are being raised annually upon the farm, which possesses sufficient water-power to gin the cotton and grind the other products. It is stated that a deposit of phosphate rock exists, which could be mined also to advantage.

TRADE LITERATURE.

Handy to Have Around.—"Handy Electrical Directory" is the title of a vest-pocket memorandum issued by the Guarantee Electric Co., 133-139 South Clinton street, Chicago. It contains the names of electrical supply dealers, as well as engineers and others located in Chicago, and is valuable as a memorandum.

Write for Copies.—The N. O. Nelson Manufacturing Co., St. Louis, is publishing new catalogues of plumbing fixtures which it desires to express, prepaid, to every architect in the South. It is worth while to write for a copy. The company's home water-supply system for farmers and suburban homes gives all the conveniences of a city residence.

It Lifts Things.—The merits of the Franklin portable crane are familiar to many manufacturers, who find it indispensable for general machine-shop practice. A leaflet recently published describes its work under various conditions. The manufacturers will give further particulars by addressing the Franklin Portable Crane & Hoist Co. at Franklin, Pa.

Something to Remember.—A leaflet recently issued by the Electric Supply Co. of Savannah, Ga., has this appropriate title, as the company makes a specialty of furnishing not only electrical supplies, but makes estimates on all kinds of electrical construction. It has a branch at Charleston, S. C., which includes a force of skilled workmen for construction and repair purposes.

Valuable for Many Purposes.—A metal compound which is of unusual value in general machine-shop and foundry use is the Nonpareil Anti-Friction Metal, placed on the

market by Messrs. Theodore Hiertz & Son of St. Louis, Mo. The copper in the alloy is treated scientifically and sufficiently hardened to prevent the "squashing out" of the journal bearings, consequently it can be applied in a wide diversity of operations. It is claimed to be superior to many other anti-friction metals, and a pamphlet recently issued by Hiertz & Son contains a number of strong testimonials of its value.

A Promising Outlook.—The American Steam Gauge & Valve Manufacturing Co. of Boston reports its business for 1901 was largely in excess of the previous year, and the outlook for 1902 is even more promising than at the same time last year. Notwithstanding the fact that two years ago it doubled its capacity, it is now contemplating additions. The demand in this country for its gauges and valves has not only increased, but foreign business is expanding. A notable feature of the business is the sale of the Thompson Indicator. The company will soon be ready to issue its attractive calendar for 1902.

A Modern Necessity.—The demand for Emerson ceiling and desk fans, such as manufactured by the Western Electrical Supply Co. of St. Louis, has assumed such proportions that the company anticipates an unprecedented trade during the present year. It is an interesting fact that in 1901 the entire output of the factory was sold before June 1; consequently, it would be advisable for customers to place their orders for fans as early as possible. Incidentally it may be said that the company has issued two very attractive catalogues, which will be mailed on application, and a daily reminder calendar very appropriate for the desk.

Adapted to Many Uses.—Recent circulars issued by the United Telphege Co. of 20-22 Broad street, New York, indicate that the telphege is adapted to a very wide variety of purposes. The circulars contain views showing it in operation carrying bags and barrels from one point to another, conveying ashes automatically from the furnace-room and transporting sand for glass factories. It elevates and carries a surprisingly large load, considering the compactness of the motor, having a capacity to lift five tons at the rate of twenty feet per minute. Anyone thinking of installing a conveying system would do well to write the company for circulars numbered 16 and 19.

Acheson Graphite Electrodes.—One of the most interesting plants utilizing the electric-power generated at Niagara Falls is that of the International Acheson Graphite Co., which is manufacturing graphite electrodes for electrolytic and electro metallurgical processes. Although the industry at this point is comparatively new, the Acheson Company has already secured for its customers some of the most extensive chemical and other manufacturers in this country, Canada and abroad. In a very artistic pamphlet the special advantages of the product are detailed. They include long life and low porosity, as well as great economy and high conductivity.

Centrifugal Pumps.—The very extensive use of this class of apparatus has caused it to be carefully studied by manufacturers and others. Consequently, the latest catalogue issued by Messrs. R. D. Wood & Co. of Philadelphia, which deals with centrifugal pumping machinery, is of more than ordinary interest. The manufacturers have endeavored to make a specialty of descriptive matter and tables of information, with the view to acquainting readers with the actual merits of this mechanism. Incidentally it may be said that the Wood pumps represent a combination of the latest improvements, and a number of the most popular designs are illustrated and described.

High-Grade Advertising.—"Cotton Chats," issued by the Draper Company of Hopedale, Mass., is intended to advertise the apparatus manufactured by this company, but the articles are so well written that one forgets the object for which they are intended. The January issue contains a computation of the possible profits made by the use of the Northrop loom, which will interest every textile manufacturer. Another valuable article is relative to feeler waste. Incidentally it may be said that this issue gives a list of spindles and looms installed by the Draper Company in a number of the principal cotton factories of the country. The company has sold over 20,000,000 spindles up to the present time.

For Autos.—As might be expected, the Mason Regulator Co. of Boston, Mass., has placed on the market a complete line of power appliances for automobiles, also the Mason automobile engine. In a pamphlet

describing the apparatus the fact is mentioned that this company has been building high-class machinery for the last twenty years, and that the auto engine represents the best of its work. It is very popular with chauffeurs, as is indicated by its sale throughout the United States. The catalogue also contains a description and illustration of the various parts required and price-list, as well as telegraph code. The company is prepared to replace parts at the shortest notice.

Saves Insurance.—On account of the advantages possessed by wired glass, it has been approved by insurance underwriters as a substitute for more expensive fire protection, and inspectors in various cities have given it the same "credit" as for fire-shutters. The Mississippi Wire Glass Co. of 277 Broadway, New York, has recently issued Circular No. 1, containing a number of letters from inspectors, fire-department chiefs and other experts endorsing the merits of the wired glass. It is being used very extensively in the construction of hotels, factories, office buildings and other large contracts. Circular No. 2 contains specifications for the use of material, and illustrates instances where the glass prevented the spread of fire.

Proper Fire Protection.—In the establishment of industries on the Pacific coast the promoters have evidently taken into consideration the value of adequate fire protection, as the Grinnell automatic sprinkler system is being installed in connection with some of the largest plants. The Alameda Sugar Refinery at Alvarado, Cal., is supplied with a wet-pipe system of 500 sprinklers, the water supply being gravity tanks, fire pumps and quick-firing engine and boiler. Already the company has had one fire, which was extinguished within two minutes by the use of ten sprinklers only. Other companies which have been fortunate in securing this apparatus are the Occidental Mills of Eureka and the Tacoma Mill Co. of San Francisco. The United States Sprinkler Bulletin, No. 26, contains testimonials of the value of Grinnell apparatus, and notes the fact that the system has been used in over 5000 fires, and in every case with success.

A Modern Furnace.

The Manufacturers' Record is advised that the Woodstock Iron Works of Anniston, Ala., is rebuilding one of its furnaces and adding large modern improvements, including Cahall boilers, skip hoist of the Julian Kennedy design, with electric haulage in stockhouse and yards. The cost of the improvements to the furnace will be \$125,000, and they will be completed about July 1. It is estimated that when finished the furnace will have a daily capacity of 300 tons.

Active steps are being taken to organize the Southern Supply & Machinery Dealers' Association. A number of prominent machinery and supply dealers in the South are back of the undertaking, and a meeting will be called at an early date to perfect the organization. The services of Mr. C. B. Carter of Knoxville, Tenn., who is secretary-treasurer of the Southern Hardware Jobbers' Association, has been secured to take charge of the proposed association. Mr. Carter will continue as secretary of the Hardware Association, and will therefore actively prosecute the work of both associations.

Emory College, Georgia, is to have a new science hall. It will be two stories high, with a basement, and will cost \$35,000. At the meeting of the board of trustees last June, Capt. J. P. Williams of Savannah, president of the board, offered to give \$15,000 toward the erection of the building if other friends of the school would put up an equal amount. This has now been secured, and the work will begin as soon as the specifications are made out by the architect, Mr. G. L. Norrman.

A dispatch from Galveston states that a board of expert engineers has submitted plans for a concrete breakwater on the Gulf side of Galveston to cost \$3,500,000 for the protection of the city, and that there is every indication that the money will be raised and the improvement made.

FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

New Corporations.

Wm. Ballwine is interested in the Citizens' State Bank, recently organized at Wellston, Okla.

John S. Mosier and others have organized the First National Bank of Foss, Okla., with \$10,000.

A commission has been given to the Rogers Company of Charleston, S. C., to do a general loan business.

The Citizens' Trust & Guaranty Co. of Parkersburg, W. Va., has decided to add a banking department to its other business.

The Farmers' Bank has recently been organized at Persimmon, Okla., with \$6000 capital stock. J. H. Saxton is president.

Robert E. Wait has been elected president of the Citizens' Investment & Security Co., recently formed at Little Rock, Ark.

The Bank of Jones, Okla., recently organized with \$5000 capital stock, includes L. C. Stone of Oklahoma City as one of the directors.

The stockholders of the Bank of Cashion, Okla., have decided to change it to a national bank, and have secured the necessary authority.

Authority has been given to J. W. Greer and others to organize the American National Bank at Madill, I. T., to be capitalized at \$25,000.

Arrangements have been made to organize the Garfield Exchange Bank at Enid, Okla., with \$10,000 capital stock, by J. B. Ferguson and others.

The Royal Arch Banking & Trust Co. is being organized at Baltimore, with \$100,000 capital stock, by John C. Tolson, John S. Starr and others.

It is announced that W. B. Rogers of Laurel, Miss., is interested in the organization of another bank at New Orleans, to be capitalized at \$2,000,000.

C. E. Frost and others have organized the First National Bank at Athens, Ala., with \$25,000, and have been authorized to begin business by the government.

The National Bank of New Celina, Texas, has been organized, with \$25,000 capital stock, and has elected J. E. Mitchell, president, and B. F. Smith, cashier.

The New Home Building and Loan Association of Harford county has been organized at Belair, Md., with Isaac Hecht as president. It is capitalized at \$600,000.

The Washington County Trust Co. has been incorporated to begin business at Clear Spring, Md., with \$25,000 capital stock. The firm of J. T. Snyder's Sons is reported as interested.

It is announced that all of the stock for the Palmetto Bank & Trust Co., recently organized at Columbia, S. C., has been subscribed. It is reported that W. H. Lyles will be president of the company.

The Farmers and Merchants' Bank, which has been incorporated in Arkansas to do business at Des Arc, has elected H. A. Bradford, president; A. L. Erwin, vice-president, and W. C. Shields, secretary and cashier.

New Securities.

The town of Liberty, Mo., has voted in favor of issuing \$43,000 in 5 per cent. bonds. The mayor may be addressed.

Bids will be received until February 8 for the issue of \$100,000 in 5 per cent. bonds of Duval county, Florida, by W. B. Barnett.

W. D. Spencer at Gueydan, La., will receive bids until March 1 for the issue of \$50,000 in 5 per cent. drainage bonds of this levee district.

The issue of bonds to be placed on the market by the city of Dallas, Texas, amounts to \$50,000. The mayor will give particulars as to the date of sale.

The Washington Loan & Trust Co. of Washington, D. C., has purchased the issue of \$10,000 in 4 per cent. improvement bonds of Takoma Park, Md.

The town of Griffin, Ga., will probably vote in the near future on the question of issuing bonds for improvements. The mayor will give further information.

A measure is pending in the city council of Portsmouth, Va., to issue \$25,000 in 4 per cent. bonds for improvements in the fifth ward. The mayor may be addressed.

The town of Pell City, Ala., is about to place an issue of \$10,000 in improvement bonds on the market. William J. Foreman may be addressed for further particulars.

The Texas & Pacific Railway Co. has filed a mortgage in Louisiana to secure an issue of \$7,000,000 in bonds. The bonds are partly issued upon extensions to the line recently completed.

It is possible that Orange county, North Carolina, will vote on the question of issuing \$20,000 in bonds for road improvements. The county commissioners may be addressed at Hillsboro.

Galveston county, Texas, will probably place on the market the issue of \$275,000 in 4 per cent. bonds for various purposes. James S. Waters, county treasurer, may be addressed at Galveston.

Financial Notes.

C. A. Lyerly of Chattanooga is interested in the syndicate which has recently purchased a controlling interest in the First National Bank of Gadsden, Ala.

Mr. Fred Muller, secretary of the New Orleans Maritime and Merchants' Exchange, Limited, is authority for the statement in the Times-Democrat that a building to be erected by the Union National Bank at a cost of about \$800,000 will be twelve stories high. In addition to the banking offices proper, the building will contain rooms for many other offices, and already tenants are being secured for them under a plan conceived by Mr. Muller. Some weeks ago he proposed to gather in one building, around the Maritime and Merchants' Exchange, steamship firms, grain exporters, marine insurance companies, dealers in cottonseed products, lumber and other firms connected with maritime affairs. He drew up an agreement, and in three days had more than fifty signatures of firms agreeing to the project. In the meantime, he learned that the Union National Bank was contemplating a similar building. He therefore persuaded those who had agreed to rent rooms in the Maritime Exchange building to follow the Exchange to the building of the Union National Bank. He says that the work on the building will begin as soon as the Union National Bank can find a temporary home.

Plans are afoot in Texas to distribute broadcast reports of the representatives of the Chamber of Commerce and the Merchants' Association of New York containing the results of their observations in Texas last spring.

Florida—Two Weeks' Tour via Pennsylvania Railroad.

The first Pennsylvania Railroad tour of the season to Jacksonville, allowing two weeks in Florida, will leave New York, Philadelphia, Baltimore and Washington by special train on February 4.

Excursion tickets, including railway transportation, Pullman accommodations (one berth) and meals en route in both

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directions while traveling on the special train, will be sold at the following rates: New York, \$50; Philadelphia, Harrisburg, Baltimore and Washington, \$48; Pittsburgh, \$53, and at proportionate rates from other points.

For tickets, itineraries and other information apply to ticket agents, or to Geo. W. Boyd, assistant general passenger agent, Broad Street Station, Philadelphia.

Mexico and California—45 Days' Tour via Pennsylvania Railroad.

The Pennsylvania Railroad personally conducted tour to Mexico and California, which leaves New York and Philadelphia on February 11 by special Pullman train, covers a large and intensely interesting portion of North America, embracing a great part of Mexico, the beautiful coast resorts of California, and on the return journey from California, the Grand Canon of Arizona, one of the great wonders of the country. Fourteen days will be spent in Mexico and nineteen in California. The Mexico and California Special, to be used over the entire trip, will be composed of the highest-grade Pullman parlor, smoking, dining, drawing-room, sleeping, compartment and observation cars, heated by steam and lighted by electricity. Round-trip rate, covering all necessary expenses during the entire trip, \$575 from all points on the Pennsylvania Railroad system east of Pittsburgh, and \$570 from Pittsburgh. For the tour of Mexico only the rate will be \$350, and for California only, which will leave February 25, \$375. For itinerary and full information apply to ticket agents, or address George W. Boyd, assistant general passenger agent, Broad Street Station, Philadelphia.

